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Textile World

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*Editor:* Douglas G. Woolf

# *Quality Standards for the Consumer*

THE confusion of thought which has characterized the discussion of setting up quality standards on sheets and other textile products, for the guidance of the consumer, is exemplified by the remarks of Dr. P. G. Agnew, secretary of the American Standards Association, before the American Home Economics Association.

Dr. Agnew is quoted as referring to the unwillingness of sheet manufacturers to supply data on yarn count, strength, and weight, as a "challenge", indicating a belief on their part that the consumer is not a factor in the agitation for sheet standardization.

▼

So far as we know, that has not been the point at issue.

Manufacturers have based their disagreement with the plan largely on the fact that this technical information would be of no value to a consumer, but would merely be confusing; that it would encourage faulty advertising programs exploiting minor and unimportant variations in the specifications; and that, by confining standards to these technical details and ignoring other less tangible but even more important factors of quality, a manufacturer is placed in the position where, as Ernest N. Hood stated, he "could honestly place the same specifications on his second quality as on his first quality."

The latter point is the significant one. The situation is analogous to the old proposal to identify the components of wool goods as "virgin wool" or "reworked wool", when it was well known that many grades of the latter were superior to some grades of the former.

A consumer wants facts—but he, or she, wants facts which mean something.

▼

However, we do not believe textile manufacturers can dismiss the subject on these grounds. The demand for consumer standards in all products will grow —and rightly so. A group of more intelligent buyers is being developed. This means, inevitably, protection not only for the purchaser, but for the honest manufacturer and the honest retailer.

Consequently, we recommend to mill men a different approach to the problem. Instead of being merely on the defensive against unsound plans, they should be on the offensive—and take the lead in development of standards which will really be helpful to the consumer, and, consequently, to the ethical concern in industy and trade.

Certain branches of textile manufacture have made a start. Such activity should become one of the major phases in the programs of all divisions. If the right attitude were employed, it would seem probable that cooperation would replace antagonism, in the relations between manufacturers' associations and home economics organizations.

# The Week in Textiles

## *as Reflected in This Issue*

### *General*

**The Strike Situation**

Scattered strikes in wool and silk mills in New England and New Jersey are growing to a point where they mean an industry-wide effort on the part of labor. Particularly is this true in the silk field where unions have actually issued a strike call. *(page 52)*

Editorial comment on the situation asks observers to look beneath the surface to the true purposes of the unions involved. *(page 35)*

**Labels and Messages**

The label can do more than merely identify goods. It can carry information to the consumer and any suitable message from the manufacturers. Practical limitations are discussed by a writer with close retailer and mill contacts. *(page 34)*

**Jacquard Patterns on Dobbies**

The possibilities and methods of making jacquard designs on dobby looms is set forth in a well-illustrated article. "Hit-and-miss" patterns show surprising results. *(page 36)*

**Economic Planning**

Economic planning as a responsibility of the individual business man was stressed by Frederick M. Feiker, new head of the Bureau of Foreign and Domestic Commerce, in his first public speech after assuming office. He analyses individual and collective problems. *(page 43)*

**Microanalysis of Fabrics**

The steroscopic binocular microscope comes into its own in the analysis of fabrics. Advantages lie in the depth of focus, the large working distance, and the fact that the specimen is not reversed. *(page 46)*

**Efficiency Men from the Ranks**

Comments on previous articles regarding efficiency men are made by the author. *(page 51)*

**Overdone Optimism**

Overdone optimism proves a drag on business readjustment, says Dr. L. H. Haney in TEXTILE WORLD Analyst. There are indications, he says, that business is nearing bottom, but he finds that industrial activity continues to fall to new low levels. He continues to urge better controlled production on all branches of the textile field. *(page 63)*

### *Cotton*

**Intensive Drive by Durene**

The Durene Association of America was a significant factor in the "Wear Cotton" movement, and conducted a promotional drive of unusual proportions, in 15 states, as result of which retail cotton sales have shown considerable increase. *(page 44)*

**Diversification**

Diversification of production is not only not a panacea for the individual mill, says George A. Sloan, president, the Cotton-Textile Institute, but it often results in demoralized markets. If such a program is to be followed it is necessary that careful consideration be given to many elements. *(page 45)*

**Spots and Streaks**

There are two distinct causes of the development of streaks and spots in dyed goods which have been allowed to stand for a period of time. Both of these causes are carefully described and preventive measures named. *(page 49)*

**Slub Yarns**

Various methods of producing slub yarns and the problems involved therein are discussed. Attachments for producing these yarns on the regular spinning frames are described. *(page 50)*

**Producing Glazed Finish**

The use of the friction calender in producing a glazed finish on chintz is carefully described. Precautions should be taken to guard against an excessive application of wax. *(page 50)*

**New Long-Drafting System**

Announcement is made of a new system of long drafting which may be easily applied to an ordinary spinning or roving frame. *(page 60)*

**Cotton Rallies and Waits**

Cotton made a rally from the low point of its early July slump, but failed to hold its full gains. The market wavers with the daily tone of international news. *(page 67)*

**Spinners Firm**

Spinners of cotton yarns have shown general firmness this week despite bearish tactics by buyers. A fighting spirit is evident which is the basis for much encouragement. *(page 67)*

**Quiet Cotton Goods**

With the lessening of second hand offerings of print cloths, the cotton goods market presented a firmer picture this week. Trade was very quiet, however, and may not move forward again until international relations and cotton crop prospects are clarified. *(page 71)*

### *Wool*

**Cap Spinning**

Although small ranges of worsted-yarn counts may be cap spun at the same speed, care should be taken not to overstep the bounds, as bad work is sure to result. The cap frame, if carefully studied, is capable of delicate adjustment. *(page 39)*

### The Textile Outlook

**FROM the standpoint of settling Germany's financial problems and the influence of this uncertainty on American business, the current week has been much like the previous week. There is this interesting difference—although equally inactive on general lines, the waiting period is now one of fair stability while at the start it was shot through with weakness. Influences at play are vital in shaping the more distant future but have no bearing on current movement of goods to the consumer. While this continues and stocks are held in check there is no reason for panicky selling. Satisfactory settlement may be a basis on which to start general recovery. . . . Cottons were steady with greatly lessened second hand selling. Traders are waiting for the August crop report. Wool goods move in good volume for fall and spring openings are delayed. Knit goods sellers are gaining in confidence. Silks are quiet due to uncertainty on the strike situation and the raw material price level.**

### Gray Spots on Bleached Yarn

Pulled wool should not be expected to give the same degree of brightness as sheared wool. Reasons for the development of grayish spots are given and corrective treatments are prescribed. *(page 49)*

### Wools Well Stabilized

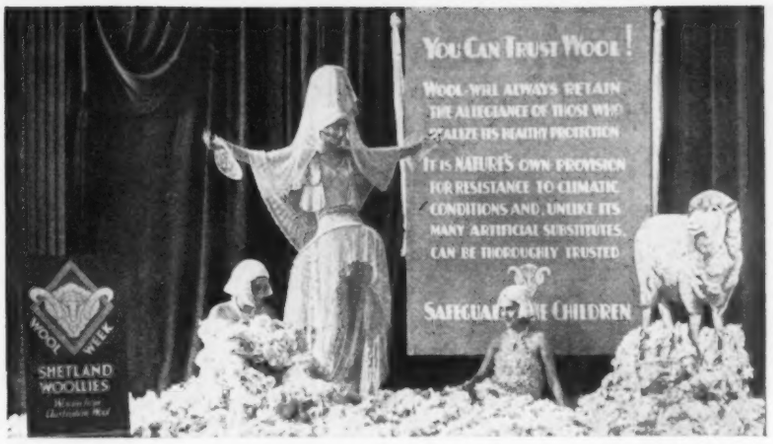
Wools hold the position of stability they gained in June, and, although business is not brisk there is a general air of confidence. Mill stocks of raw materials are regarded as being in need of constant replenishment. *(page 69)*

### Yarns Look for Advance

Worsted spinners are waiting for some one to start a price advance. General strength is evident in their refusal to sell far ahead but there is some diffidence in being the first to push up quotations. *(page 69)*

### Wool Goods Surplus?

Wool goods manufacturers, especially men's suitings mills, are far from unanimous regarding prospect of overproduction of fall fabrics. Some believe August demand will absorb stocks. *(page 71)*


YOU CAN TRUST WOOL!
WOOL WILL ALWAYS RETAIN THE ALLEGIANCE OF THOSE WHO REALIZE ITS HEALTH PROTECTION
IT IS NATURE'S OWN PROVISION FOR RESISTANCE TO CLIMATIC CONDITIONS AND, UNLIKE ITS MANY ARTIFICIAL SUBSTITUTES, CAN BE THOROUGHLY TRUSTED
WOOL WEEK
SHETLAND WOOLLIES

*A "Wool Week" recently conducted in Australia brought widespread voluntary cooperation which resulted in great prominence of articles made from wool and which cost the organizing committee less than $150. The campaign involved newspaper publicity, radio speeches, window displays, use of posters and stickers, cooperation with government officials and educators and promotion of social functions called "Golden Fleece Balls." The illustration above shows a typical window display. The week was held from May 11 to 16, which was at the beginning of the Australian winter.*

## *Knitting*

### Tuck Stitches

A combination of plain and tuck stitches finds wide use in producing designs on all classes of filling-knit fabrics. Possibilities along this line are discussed and illustrated. *(page 40)*

### Cut Hosiery Run-Proofed

The tendency of acetate material to melt and fuse when heat is applied has been taken advantage of in the development of a method for producing cut hosiery which will not run at the cut edges. Heat is applied to the cutting knives. *(page 42)*

### Mesh Hosiery Picks Up

Low-priced mesh hosiery this week proved reports of its death to be "grossly exaggerated." Demand is active and mills are increasing output. *(page 72)*

### Winter Underwear Active

Winter underwear is off to a very late start, but orders come in freely and knitters are much encouraged. Stocks are light and there is talk of a shortage. *(page 72)*

### Curtain Falls on Swimsuits

Swimsuit demand declines rapidly, after excellent season. As an index to situation, spinners report outerwear mills are most prompt of all mills in paying bills this season. *(page 72)*

## *Silk*

### Fair Call for Spun Silk

Thanks to demand from wool goods mills, spinners are passing fairly good summer. Thrown yarn quiet. *(page 70)*

### Strike Issue Hinders Buying

On top of high raw silk prices, and an uncertain fall outlook, comes the broadsilk strike problem, as result of which primarily market activity shrank almost to zero this week. *(page 70)*

### Spun Silk Harshly Treated?

The author takes exception to a statement made in a previous article regarding the bleaching of spun silk. A method of "scouring spun-silk goods" so that luster will be preserved is explained. *(page 51)*

## *Rayon*

### Setting Twist

Rayon yarns may be prevented from kinking by setting the twist by means of a steaming process or by wet twisting. *(page 49)*

### July May Exceed June

Mid-summer business is well ahead of expectations, yarn producers report, and speculation of fall shortage continues. Stock light. *(page 70)*

## *Processing*

### Dyeing Cotton-Silk Hosiery

Uneven dyeing of hosiery containing both cotton and silk is not a necessary evil. Problems involved in the dyeing of these goods are given practical solutions. *(page 50)*

### Fireproofing Awning Material

A commercially satisfactory method of fireproofing awning material is given. Waterproofing such material does little good and makes it more susceptible to mildew. *(page 50)*

### Skein Dyeing

The possibility of premature oxidation and physical injury to the yarn is said to be eliminated by the novel design of a newly-introduced skein-dyeing machine. It is particularly recommended for the application of vat colors to silk, cotton, and rayon. *(page 60)*

### The Business Outlook

**DESPITE deepened disappointment regarding the default of decisive measures to meet the European crisis, and increased anxiety about its outcome, there are signs of slow, slight but significant, strengthening in the domestic business situation. The stock market and business opinion are apparently responding to these symptoms of domestic convalescence rather than to the depressing influence of foreign factors. . . . Industries closest to the consumer are responding strongly to replacement demand at prevailing low prices, and the rapid rise in electric power production since early June reflects diversified increase in productive activity. Commodity price levels tend toward stability. Construction, equipment, and correlated industries still lag for lack of stimulus; but persistent, large-scale pressure toward lower long-term domestic money costs, through aggressive Federal Reserve open market policies could correct this situation and speed recovery.—*The Business Week.***

# *Let the Label Carry* Your Message

***By Lillian Edgerton***
*Research Counsellor, New York*

KEEPING abreast of the decidedly constructive trend toward improving the quality of merchandise, manufacturers show a growing conviction that they should carry their own message about their products direct to the consumer and do a little real merchandising on their own initiative. The label is one important agent which the manufacturers may use to get their message across. If labeling is adequately and properly done, and the product carrying the label proves satisfactory, the results will be shown by increased sales and a greater demand for the articles.

It is natural, therefore, that use of labels by leading textile manufacturers, either individually or in groups, has increased. Many of the labels now in use, however, do not give much, if any, helpful information to either distributor or consumer; and there is an insistent demand from consumer organizations for fuller and more accurate information on labels. These demands may or may not be practical; but nevertheless, they are very apparent. Accordingly, it is time for more manufacturers to assume the offensive in giving fuller information when feasible, and in broadcasting practical reasons why some of these demands cannot be fulfilled.

### Imposes a Responsibility

To attach a label to merchandise imposes on the manufacturer the responsibility of making his merchandise comply with the meaning of the phrases on the level. It also makes it imperative for the manufacturer, in so far as is possible, to make that merchandise in construction, appearance, and performance uniform with every lot carrying that same identification label. To fail in any one of these respects soon robs the label of any true significance.

Just how much information should be given on a label is open to question, and must be determined in cases of individual types of merchandise. It is impractical certainly to include all of the information which some organizations have been demanding. For instance, in the case of bed blankets, the information asked for includes the weight in pounds, actual finished size, tensile strength in warp and filling, heat-retaining properties, identification and qualities of stock, and details of construction.

For other commodities, such as sheets, hosiery, and mohair pile fabrics, there is a similar thirst for knowledge. Perhaps on some far distant day, when the majority of consumers can adequately and properly use technical information, it will seem practicable to give it all to them. But at present, it would have little real value, and in most cases, be actually misleading.

### Why Use Labels?

Why then, use any labels? Why give any information at all? The manufacturer who has put into the production of a fine fabric, time, money and inspiration wishes to protect it in so far as possible. His label will distinguish his merchandise from that of similar, but degraded qualities of products from unscrupulous competitors. Again, some types of merchandise have been constructed and finished to fulfill a definite type of service and can be advertised as having certain desirable qualities. In some instances, the branded name can be included for identification purposes.

There are many lines and brands of merchandise which deserve to have the more important details of their qualities made known and understood through the medium of a label. In order to provide the maximum advantage to both producer and user, a label should meet the following requirements:

1. Identify the materials
2. Identify the producer
3. Identify the standard of specifications
4. Be straightforward, clear, and simple

The details of the specification requirements may be registered where, if they desire, consumers may obtain full and complete information. This is not an impossible practice and several organizations have already adopted such means of disseminating information.

*Type of label used by various organizations to show that the product conforms to certain specifications*

Of course, it is difficult to find a method which has not some loopholes. To be entirely satisfactory, the quality of material, as well as the size, is important. A man's shirt may fit perfectly and comply with a set size standard, but the material may be so inferior as not to give satisfactory wear. The average label tells only a part of the story in any case.

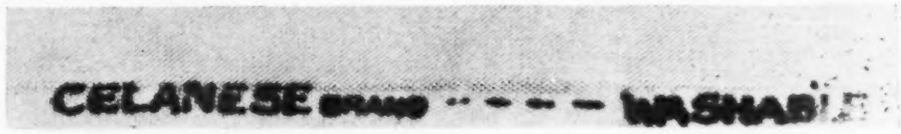
### Cooperation Needed

Primary manufacturers realize they may label materials and carry out their side of the bargain well, and yet suffer a loss through improper cutting and sizing of the garments in which their product ultimately reaches the consumer. Some few of the most courageous and progressive are seeking to make their labels tell a true, accurate, and complete story. They are assuring them-

*A branded name is included for identification purposes in these well-known labels*

FINE ALL WOOL BLANKET
LEBANON
70 x 80
This Blanket is guaranteed All Pure Wool, both warp and filling. The stock is especially selected and woven to insure the greatest possible warmth and wear.
LEBANON WOOLEN MILLS
LEBANON, TENN.

*Information as to content and size of the blanket is included in this label*




*In some cases brand names and other information appear on the selvage*

selves of this result by actively cooperating with weavers and knitters, finishers and dyers, and last—but exceedingly important—the garment makers and retailers.

When this cooperation becomes more generally the practice, and the information on the labels fuller and more accurate, carrying a similar meaningful message to all purchasers, the information thus given will tend to protect the conscientious manufacturer and retailer by providing definite information which can form the basis of redress if the merchandise does not conform to the specifications. It will provide such real information as is desired by those who wish more than can be included on a small label. It will raise the standards of quality of the commodities involved by establishing a standard by which to judge similar products. It will focus attention on quality instead of price.

# The Textile Strikes

INDUSTRIAL strife, of considerable proportions, is threatening in textile manufacture. Failure to recognize the potentialities of the present situation is an act of foolishness. Trouble started in comparatively few units, it is true, but developments under the surface indicate the possibility of a rapid spread of the disaffection. There is a tendency to merge the interests of strikes in scattered localities, into a common cause.

In line with our policy to attempt to judge labor disturbances in the textile industry on the merits of each individual case, and not on the basis of a preconceived attitude toward organized labor, we admit frankly our regret that wage-cuts had preceded the disorders in certain of the affected communities, and formed one of the alleged reasons for termination of work. Our attitude on the textile wage question is well known to our readers.

However, there is an element in the current situation which overshadows all grievances, real or implied.

Most of the strikes in Rhode Island, Connecticut, and Pennsylvania, and much of the agitation in New Jersey, are under the leadership of the National Textile Workers Union, a communistic organization. At the risk of being ridiculed as a "100% American," we state positively our belief that no textile manufacturer can afford to treat with representatives of that union, irrespective of the issues involved in the strike.

This attitude is not based on fear for our American institutions; the Red menace does not haunt our dreams. It is based purely on the conviction that the National Textile Workers Union, and the communistic organization from which it springs, have nothing constructive to offer to American workers. They are not engaged in a fight to secure better wages and conditions for employees in textile mills. Under such conditions, they can offer no real help to those whom that union induces to strike.

The textile industry is attempting to work its way out of depression. It is making progress. But the primary need is for a definite sense of striving toward a worth-while objective, on the part of both management and labor. The National Textile Workers Union has no such objective.

Under these conditions, there seems to be no answer other than that manufacturers affected by "National" strikes should remain closed, if necessary, rather than deal with that group. Sooner or later the strike leaders will be repudiated by the employees, just as they were in the South. Then will be the time to attempt to compose differences with the workers themselves.

We regret the necessity of offering such a negative suggestion, but know of no other way to meet the communistic attack.—*Editor.*

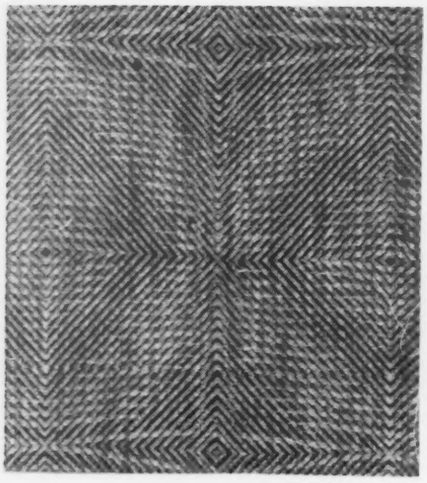


Fig. 6

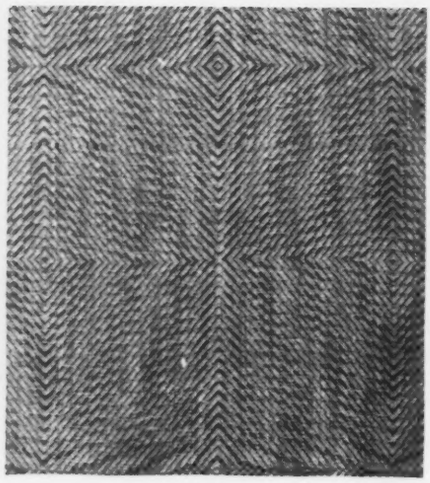


Fig. 7

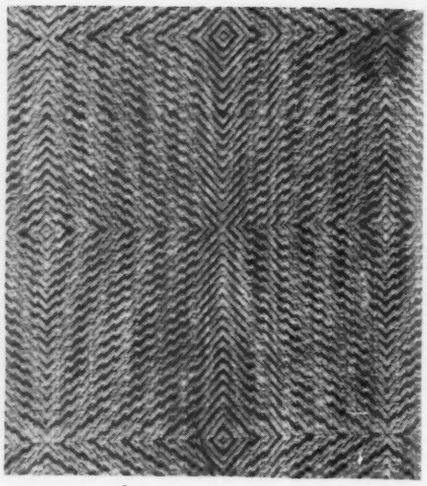


Fig. 8

# *Designing* Jacquard Patterns *On Dobbies*


*By Thomas Nelson*

*Director Textile School, North Carolina State College*

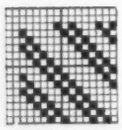



Fig. 1

**Basic Weave and Chain Drafts**

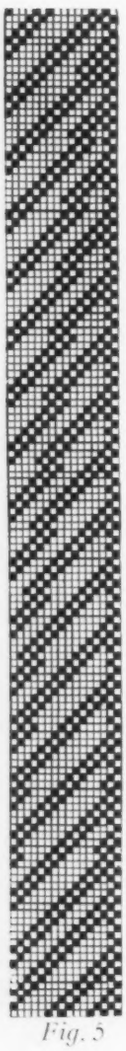


Fig. 5

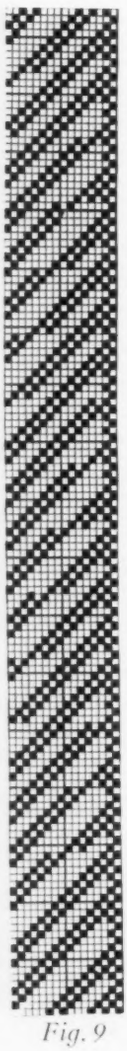


Fig. 9

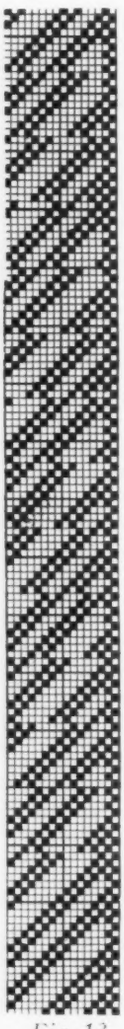


Fig. 13

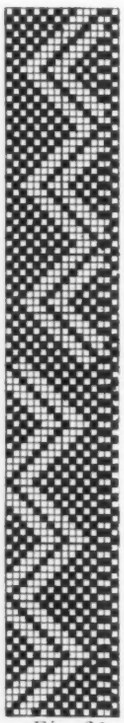


Fig. 21

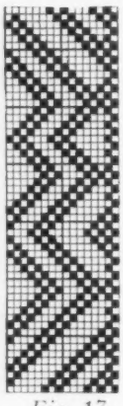
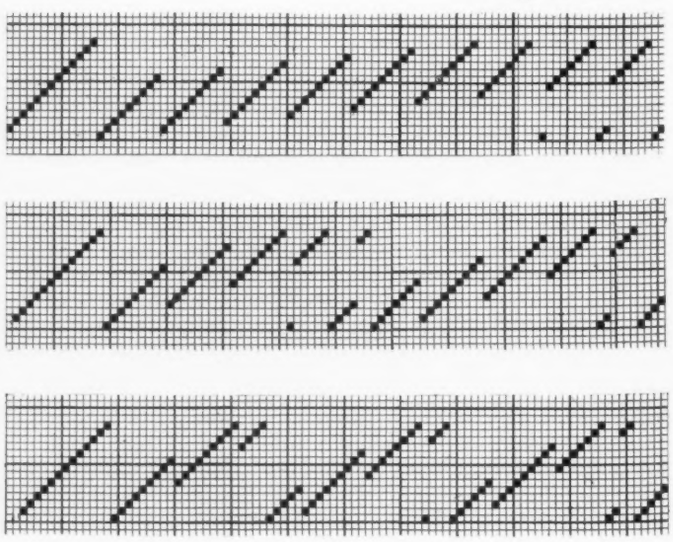


Fig. 17

**Group of Harness**



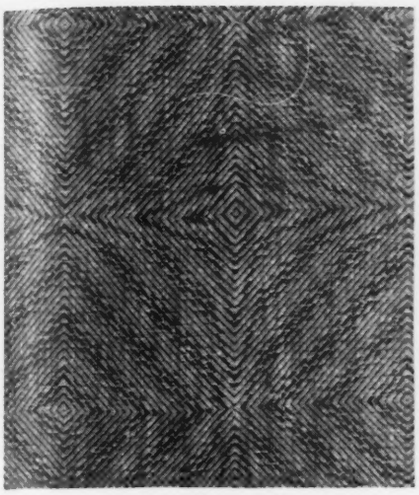


*Fig. 10*

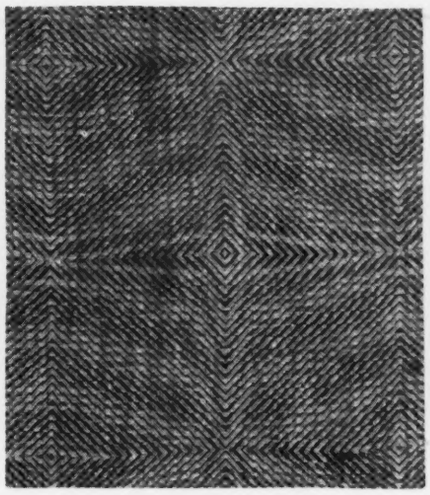


*Fig. 11*

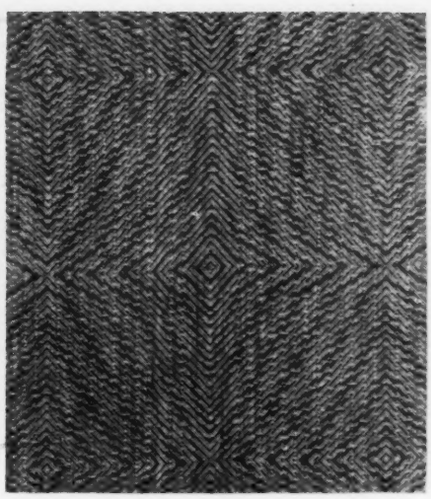


*Fig. 12*

THE use of pointed drafts, skip drafts, double and triple diamond drafts, etc., enables us to make jacquard patterns on the dobby loom. The purpose of this article is to demonstrate still another method which can be used to produce different patterns. It is dependent upon a principle which involves changing the system of skipping harnesses.

To illustrate the principle, a warp was drawn into the harness with three different drawing-in drafts and a corresponding number of chain drafts. A sixteen-harness dobby was used, fourteen harnesses for the pattern and two for the selvage. The basic pattern is the fourteen harness $\frac{1\ 1\ 1\ 1}{5\ 1\ 3\ 1}$ twill illustrated in Fig. 1. Any other base or foundation weave can be used, each giving a different effect in the fabric.

### Harness Draft Construction

The drawing-in drafts, which were used are illustrated in Figs. 2, 3, and 4. The principle on which these drafts are made will be readily seen. In Fig. 2, the first fourteen threads are drawn through the harnesses from front to back, or one to fourteen; then nine ends are drawn through from one to nine. After this, each group of nine ends is advanced one harness until a repeat is reached on the first harness, at which point the drawing-in draft is reversed.

### Designing Patterns

The chain plan, one half of which is illustrated in Fig. 5, is also made on this principle, the second half being the reverse of that which is illustrated. The first fourteen picks represent the base weave. Then nine picks of the pattern are used, after which each nine picks is advanced one pick until the pattern repeats. It is then reversed as in the drawing-in draft. Fig. 6 illustrates the pattern derived from this drawing-in draft and chain plan. The pattern derived from drawing-in draft Fig. 3, in conjunction with the same chain plan, is illustrated at Fig. 7; and the pattern derived from drawing-in draft Fig. 4 is illustrated at Fig. 8. As will be noticed, the three patterns are more or less similar.

Fig. 3 shows the second drawing-in draft. On each nine threads a skip of three is made and continued as previously described. The chain plan is made by skipping three picks at the beginning of each nine to correspond with the drawing-in draft, and is illustrated at Fig. 9. Only one half of the chain plan is given, the second half being the reverse of this. Fig. 10 illustrates the fabric derived from this drawing-in draft and chain

**Drafts Used in Making Patterns Illustrated in This Article**

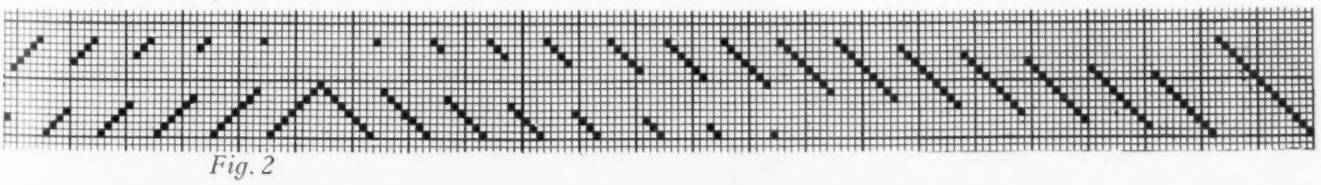


*Fig. 2*

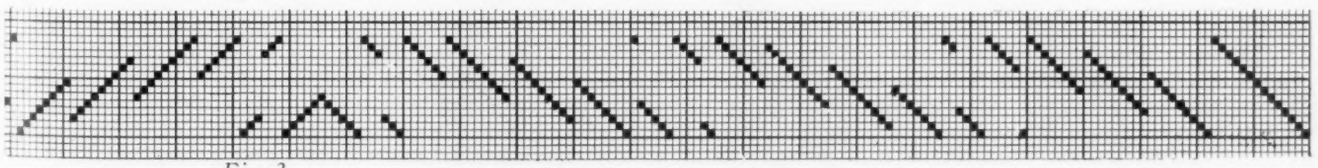


*Fig. 3*

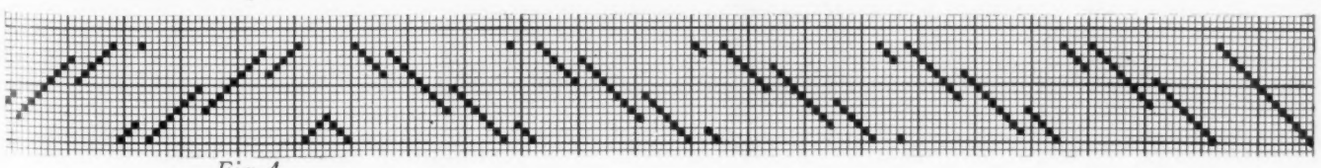


*Fig. 4*

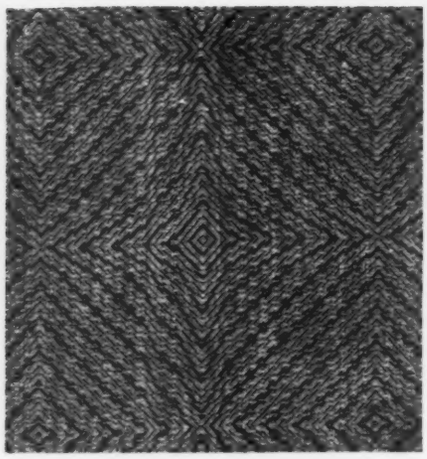


*Fig. 14*

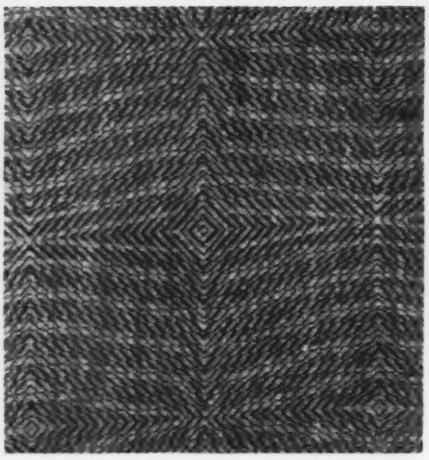


*Fig. 15*

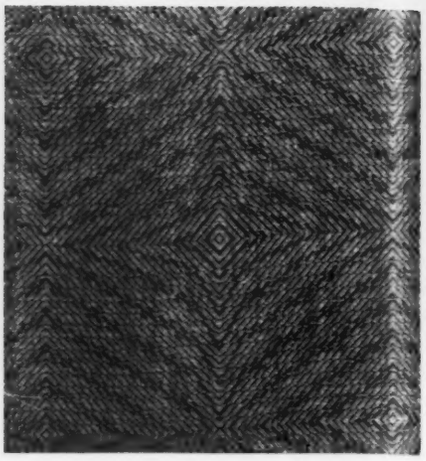


*Fig. 16*

plan. The pattern derived from drawing-in draft Fig. 2 is at Fig. 11. The pattern derived from drawing-in draft Fig. 4 is at Fig. 12.

Fig. 4 illustrates the third drawing-in draft. On each nine threads a skip of five is made and continued as previously described. The chain plan is made by skipping five picks at the beginning of each nine picks to correspond with the drawing-in draft, and is shown at Fig. 13. The pattern derived from this drawing-in draft and chain plan is illustrated at Fig. 14. The pattern derived from drawing-in draft Fig. 2 is at Fig. 15, and the pattern derived from drawing-in draft Fig. 3 is at Fig. 16. Patterns illustrated at Figs. 6, 10, and 14 are therefore produced from drawing-in drafts and chain plans made for these drafts, but patterns illustrated at Figs. 7, 8, 11, 12, 15, and 16 might be classed as hit-and-miss patterns. All the patterns shown here are more or less similar.

From illustrations given, it will readily be seen that any change in base or foundation weave will give corresponding changes in the patterns produced, or any change in the number of threads used or skips made will also produce different patterns in the fabric.

Using the same three drawing-in drafts with chain plan Fig. 17, patterns shown at Figs. 18, 19, and 20 were made. Patterns illustrated at Figs. 22, 23, and 24 were constructed using chain plan Fig. 21. Another illustration of a jacquard pattern made on a sixteen-harness dobby with a mixed drawing-in draft is given at Fig. 25.

**Patterns Produced by Combining Chain and Harness Drafts**

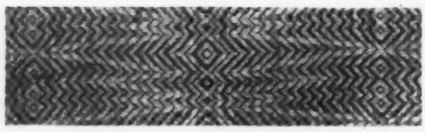


*Fig. 18*

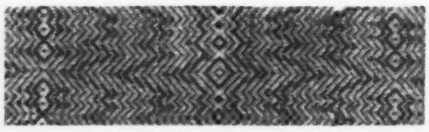


*Fig. 19*

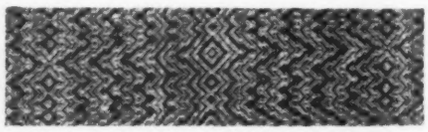


*Fig. 20*

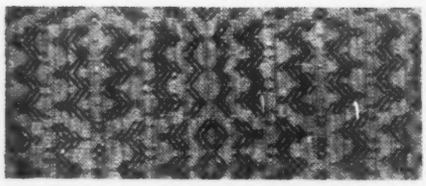


*Fig. 23*

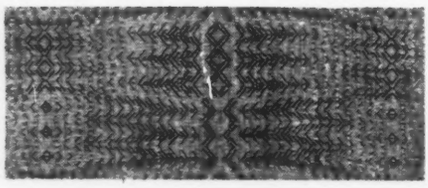


*Fig. 22*

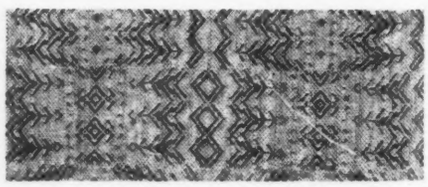


*Fig. 24*

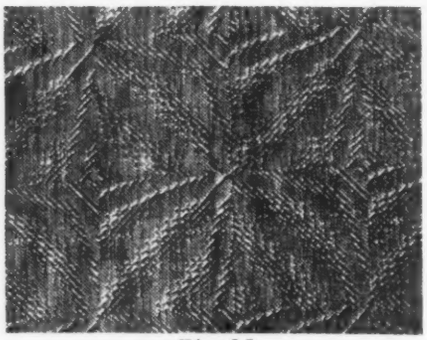
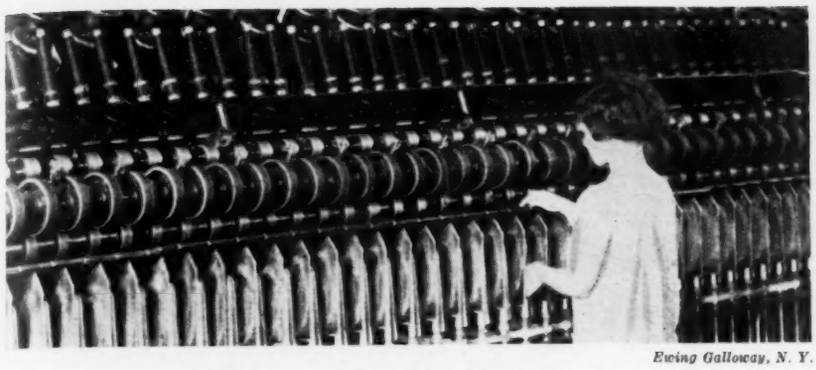


*Fig. 25*



Ewing Galloway, N. Y.

*Cap spinning frame is capable of delicate adjustment*

# *Adjustments of the* Cap Spinning Frame

## *By George Hendricks*

THE more severely cap spinning is condemned by technologists, the more popular it appears to become in the industry. The reason for its success is twofold: First, the type of spindle mounting makes possible a high tube speed accompanied by a correspondingly higher production; and second, a wide range of counts can be spun on this frame without necessitating any adjustments to meet drag variations.

### Types of Caps

Three forms of caps are in general use—the ordinary straight cap, the conical cap, and the bell-shaped cap. The straight cap is suitable for double-headed bobbins, while the latter two are better adapted for spools or tubes. The efficiency of the cap frame is very largely determined by the suitability of the caps and the condition in which they are kept. The constant vibration of the spindle in the running tube has a tendency to cause the apex to wear and the cap to descend, thus necessitating periodic reblocking. The position of the bobbins is determined by the lifter plate, and the caps must be set to it by either raising or lowering the spindles. When a change is made from one kind of bobbin to another, the spindles should be examined to see that the caps are properly set; otherwise bad bobbins will result. If the tops are badly worn, the spindles should be removed and good ones substituted, as the position of the cap has some influence on the quality of the yarn produced.

### Care of Caps

To facilitate the removal of the caps during doffing, the tips of the spindles should be constantly oiled; if this is neglected, they have a tendency to stick and, in forcing them off, the cap edge is very liable to become damaged. A fall or knock may produce the same result; and when it occurs, the cap edge must be ground to remove the irregularity or it will be impossible to keep the ends up. The rubbing of the yarn on the cap causes grease and dirt to collect there, and this will cause trouble unless it is removed.

The conditions existing in a cap frame are somewhat similar to those which are present in cone drawing. In this case the yarn is pulled from the under edge of the cap because the bobbin leads. In cap spinning no change is made in bobbin speed to compensate for increase in diameter of the bobbin. Since both the roll and bobbin speeds are fixed, the change in diameter of the bobbin must be accompanied by an increase in balloon speed. In order that winding will take place, the speed of the balloon must be less than that of the bobbin. The friction between the yarn and the edge of the cap is sufficient to produce the necessary drag. This friction is dependent upon the size of the cap, the count of the yarn, the speed and diameter of the bobbin, and position of the spindle. Much has been learned from experiment and observation in this direction.

### Function of the Cap

The cap has a somewhat complex function. It enables the bobbin to put the twist in the yarn, guides the end during the traverse of the lifter, and contributes towards the necessary resistance to insure winding. These features may be best shown by an example. Assuming that the front rollers are 4 in. in diameter and make 40 r.p.m., they will deliver 503 in. of yarn per min. If the bobbins are 1 in. in diameter and run at 7,000 r.p.m., they will be capable of taking up 22,000 in.; and at 2 in. diameter, double the quantity. But only 503 in. are available in each instance. The yarn will receive 14 turns per inch; and if the diameter of the cap be taken as $2\frac{1}{8}$ in., it will have to pass through 49,500 in. of space. Here then, we have three factors; viz., 503 in. of yarn, traversing 49,500 in., to be wound on a bobbin capable of taking up 22,000 in. per minute. It will be clear that some compensating arrangement is essential. Since the delivery speed is constant, the increase in bobbin surface speed must be accompanied by a corresponding increase in the speed of the yarn about the cap. This is one reason why many prefer spools to ordinary bobbins. Still, the change is so gradual and is distributed over such a great length, that the difference in this respect is very slight.

In many cases we find that all counts, say between 30s and 64s, are spun under exactly the same conditions to the detriment of the finer counts. Some have adopted a more rational method and have fitted their frames with short spindles, small caps, and thick-barreled bobbins for fine counts. When a range of different counts are to be spun with the same equipment, the bobbin speed should be altered accordingly. Although small ranges may be spun at the same speed, care should be taken not to overstep the bounds, as bad work is sure to result. Yarn will stand only a certain strain in spinning; and the nearer we approach its maximum, the leaner and more wiry will the thread become. This is most important, since the two factors, tension and speed, are so intimately related. It is possible to run a cap frame at such a speed that it becomes impossible to keep up the ends; on the other hand, it can be run to spin so well and to wind the yarn so softly that it is difficult to unwind it from the bobbin. However, if properly studied, the cap frame is capable of delicate adjustment.

# Tuck Stitch

## *Holds First Place in Fabricating Designs on Circular-Knit Fabrics*


*By George L. Logan*

*With Tompkins Bros. Co.*

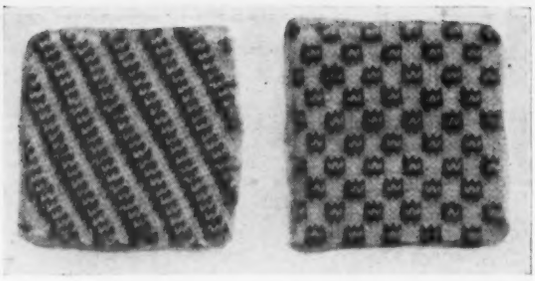



*Fig. 1. Patterns produced with*

IN fabricating designs on all classes of filling-knit flat fabrics, a combination of plain and tuck stitches finds wide use. Some designs are made with a float stitch, and a few small and limited patterns are made with a laid-in or backing thread; but in pattern work for outerwear, at least, the tuck stitch is of first importance. While the actual mechanical means of forming tuck stitches may vary with the type of machine and type of neede used, the same principles of design hold good in any event. In other words, if a particular design is to be reproduced, certain elements must remain fixed, regardless of the type of machine used to reproduce it. The standard circular, leaded-type, spring-needle machine is taken as a basis in this discussion, and terms used will apply to that type of machine. A cut presser is used as the tucking element, and this provides a very efficient and competent means of producing the desired effects. In general practice, not more than four to five wales are tucked consecutively; and a stitch held for four or five courses on the same needle is the practical limit lengthwise of the fabric. Anything in excess of this places an undue strain on both the needle and the yarn; it also distorts the fabric to a greater or lesser degree, depending upon the number of wales and courses tucked.

### Necessary Requirement

The design area is not a set factor and can be varied to suit the desired pattern. Small patterns are designed with little difficulty, and large patterns are limited only by the size of the pressers and the number of feeds which it is practical to use. An exact number of needles is a necessary requirement, and this is sometimes a stumbling block when the gauge and cylinder size also have to be exact. It is usually possible, however, to change the design a slight amount so that it will divide correctly into the total needles, yet not alter

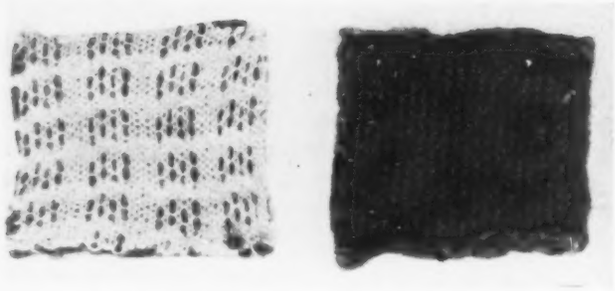


*Fig. 3. Colored backing yarn occasionally is employed to add weight to the fabric and at the same time to give a pattern effect*

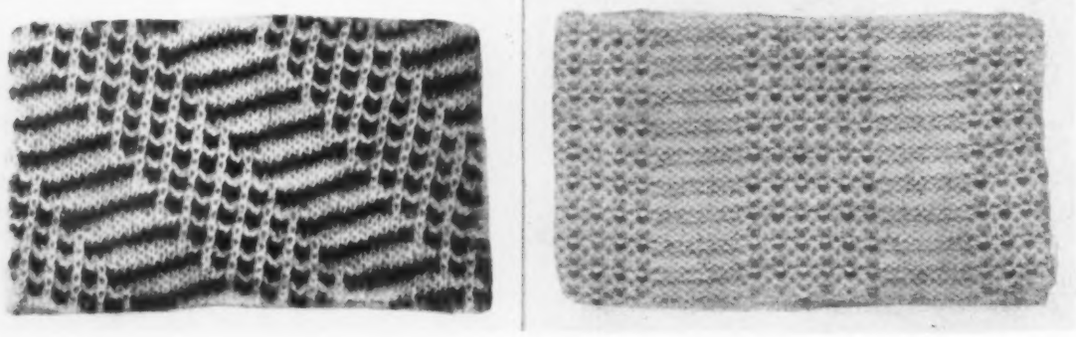
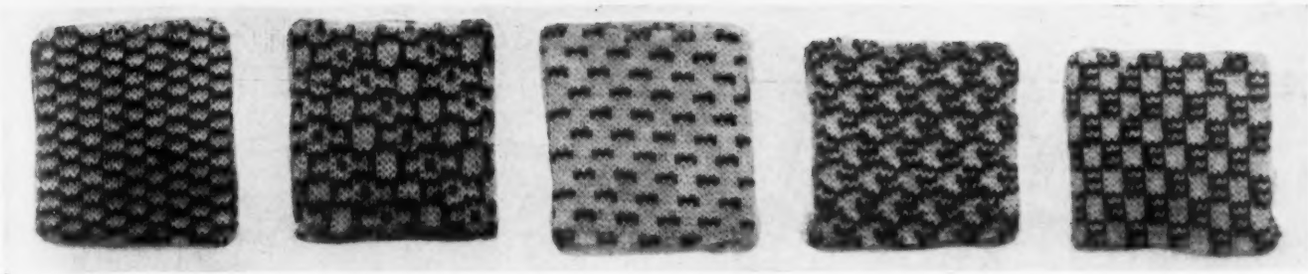


*Fig. 2. A change of two needles accounts for the difference in design*



*same pressers* ***by varying their position with respect to their engagement with the needles***

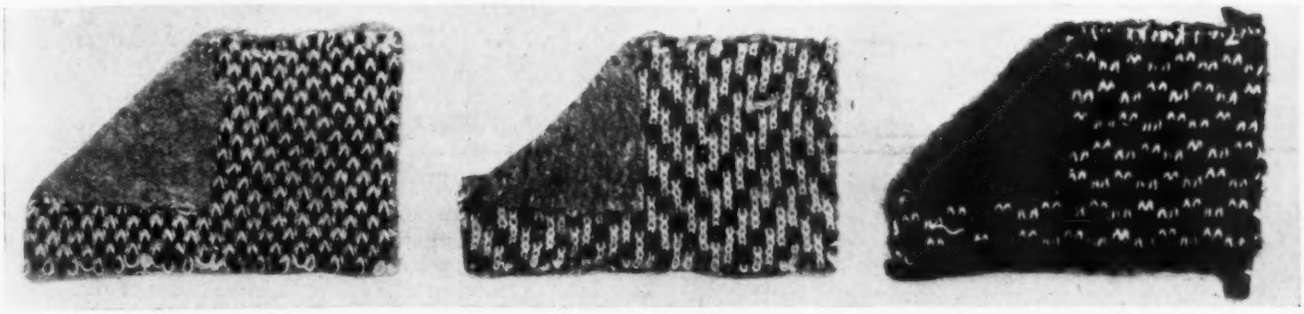


*Fig. 4. Face and back of fabrics produced with a combination of cut pressers and backing wheels*

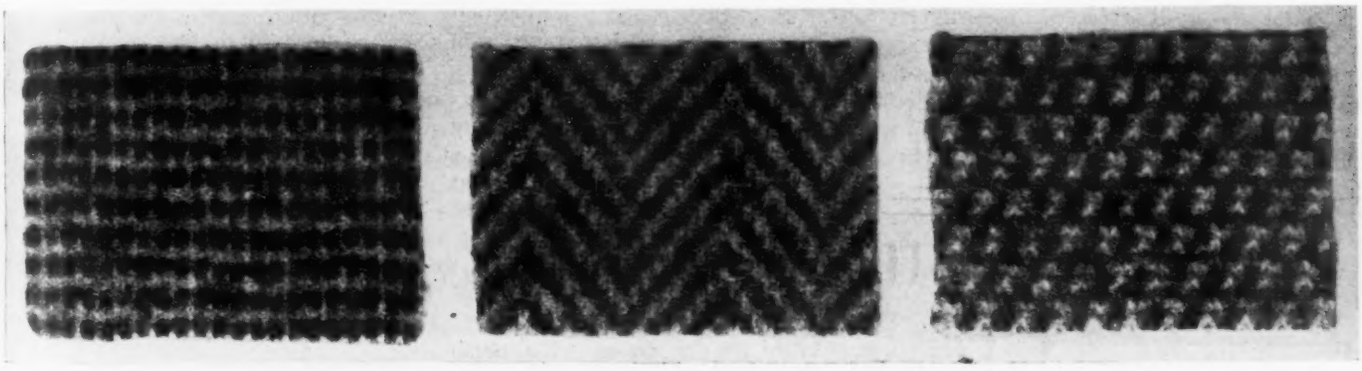


*Fig. 5. Typical overcoatings and topcoatings*

it enough to affect materially the shape or size of the pattern.

In originating a design, there is one factor which is rather difficult to estimate before the pattern is set up on the machine. A design as laid out on paper may have an entirely different appearance after it is knitted; this variation is caused by fabric distortion due to the tuck and plain-stitch combination. Just how much distortion is to take place cannot be judged definitely beforehand, especially if the pattern is at all irregular.

The fabrics illustrated in Fig. 1 show the variations possible without changing the needles or the cuts in the presser. These patterns were all made by using from one to three cut pressers all cut alike—three and three. By varying the position of these pressers with respect to their engagement with the needles, and by varying the number of cut pressers used on four to six feeds, these different combinations were produced. Many more small-figured effects might be added to these by small additional changes in the pressers, needles, feeds, and their multiple combinations.

Another example of a decided difference made in the appearance of a fabric by a slight change in the machine set-up is shown in Fig. 2. The diagonal effect was obtained simply by using two needles less than in the other sample.

While not extensively employed for patterns, a colored backing yarn can be combined with a face yarn to give a design where weight is desired. In this case the backing yarn serves the double purpose of giving a pattern and adding weight. Since face yarn is much finer than the backing, the colored backing shows through the face at the tie-in points, and produces the effect of a pattern. A backing thread is not classified as a stitch thread, but is simply a laid-in thread, commonly used to obtain the required weight in the fabric and to give a particular finish on one side of the cloth. Illustration of this type of fabric is given in Fig. 3.

A combination of backing wheels and cut pressers is sometimes used to impart decidedly different characteristics to each side of the fabric. The back can be given a napped finish, while the face will be smooth and will show the pattern. Fabrics made on this principle, which are used for sweater coats or jackets, are shown in Fig. 4.

Still another variation is produced in men's overcoating. The difference from the last mentioned classification is in the weight, type and size of yarns used, and the finish of the cloth. Although many overcoatings are plain, there are also those having patterns worked on the face. The ordinary herringbone is probably one of the most commonly known designs on heavy fabrics used for this purpose. Topcoatings, as to pattern, follow the same lines

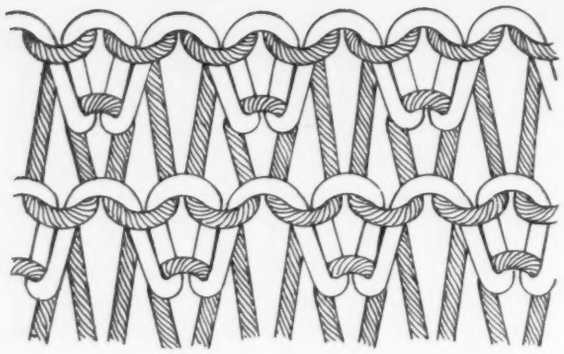


*Fig. 6. 1×1 tuck stitch—alternate courses and needles*

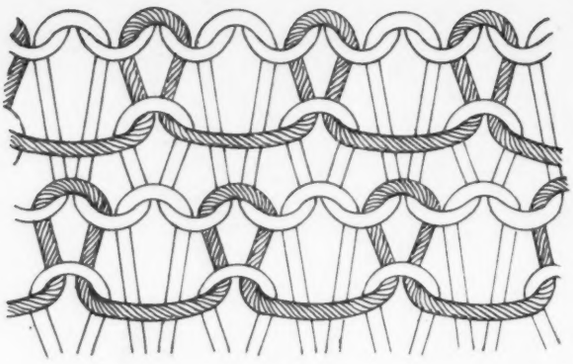


*Fig. 7. 1×1 float stitch—alternate courses and needles*

as overcoatings; but of course are much lighter in weight and do not employ a backing yarn, since their weight does not require it. Fig. 5 illustrates general types of top-coatings and overcoatings.

### Float Stitch

Use of the float stitch is not uncommon in flat-knit fabrics, but is not so extensively used as the tuck stitch. The most obvious reason for this is the fact that floating threads on the back of a fabric are easily "caught" which is naturally undesirable in wearing apparel. A float across one, or possibly two, wales is good practice for making vertical-stripe effects on the finer gauges. Longer floats can be made, of course, but the cloth tends to become loose and sleazy with added lengths of floats. On machines employing burrs for the stitch action, a blocked stitch wheel, in combination with a cut presser, gives a float stitch. A block in the sinker burr places the yarn in front of the needle beard instead of under it; and a deep cut in the presser acting on the same needle prevents the old stitch from being cast off.

A cam-and-jack or cam-and-needle action is used to produce the same result on various other types of machines.

On fine cloths, such as fine-gauged underwear, float stitches are sometimes mistaken for tuck stitches on casual examination. A close scrutiny with the aid of a magnifying glass, however, will show the different stitch formation as seen by the accompanying sketches in Figs. 6 and 7. The float stitch at the present time is finding possibly its greatest use in the manufacture of fine underwear of the run-resisting type.

# Acetate Cut-Hosiery *Run-proofed* by Fusing

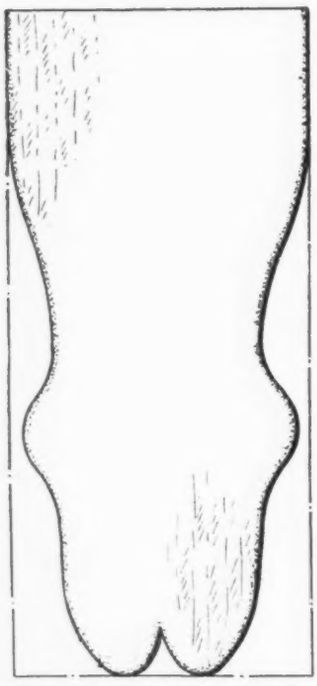


*Fig. 1. Blank for the manufacture of a stocking from a single piece*

THE susceptibility of cut hosiery, especially of the filling-knit type, to "ladder" at the cut edges has been a source of considerable trouble to manufacturers of this type of knit wear. It is with a view to obviating this trouble that there has been developed a new method of cutting hosiery knitted from acetate yarn so that laddering will not take place. The patent, No. 1,802,634, has been granted to Dr. Camille Dreyfus, president of the Celanese Corporation of America.

This invention, which is applicable to both filling-knit and warp-knit fabrics, concerns "a process of manufacturing stockings which comprises cutting out a blank from a piece of fabric containing organic derivatives of cellulose, simultaneously melting the edges of the cut-out portions of the fabric as the same is being cut, and subsequently joining the longitudinal edges of the blank by sewing them."

The outstanding feature of the invention lies in the heating of the cutting edge. It is more or less a well-known fact that organic derivatives of cellulose melt and fuse when heat is applied to them. Therefore, when the hot cutting edge strikes the fabric, this action occurs in the fibers, and their coalescence prevents any laddering of the edges either in the subsequent sewing operations or while the stocking is being worn.

Stocking blanks cut by this method are diagrammatically illustrated in the accompanying drawings. Fig. 1 shows a blank for the manufacture of a stocking from a single piece. Fig. 2 shows a similar blank for the manufacture of a stocking from two pieces.

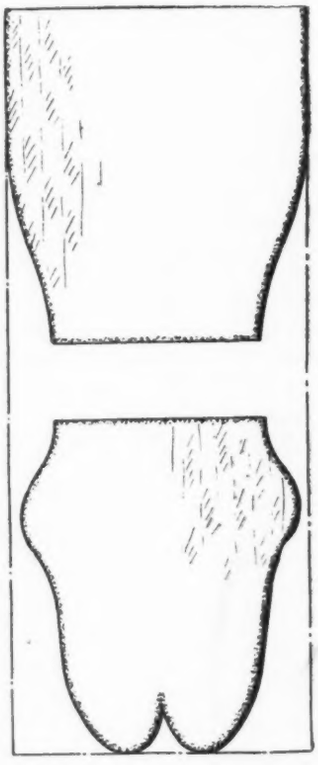


*Fig. 2. Blanks for the manufacture of a stocking from two pieces*

# *Trade Organizations Should Take*

# Two Inventories


## *By Frederick M. Feiker*

*Director, Bureau of Foreign and Domestic Commerce*


◆ *In his first public speech, after assuming the directorship of the Bureau of Foreign and Domestic Commerce, Frederick M. Feiker, formerly managing director of the Associated Business Papers, Inc., placed squarely upon individual business men and their trade organizations the responsibility for economic planning. His address, which was presented before the Washington Trade Association Executives, is abstracted below.*—Editor.

THERE are two phases to my discussion with you of our mutual opportunities: First, a consideration of what kind of problems lend themselves to collective action; and second, what is the machinery already existing, and in some cases already acting, to find a solution for those problems. In order that I might have a basis of more than guesswork, with the co-operation of the directors and division chiefs of the Bureau of Foreign and Domestic Commerce, I have assembled a comprehensive sample of the type of problems which are now being considered collectively by American businessmen, working hand-in-glove with the Government.

First of all, there are their own individual problems that they are attempting to solve cooperatively, such for example as legal problems, problems of production and distribution, and fact finding.

Second, there are the problems of the trade as such, such as public relations, of legislation, of contracts with governmental agencies, of publicity.

I am not going to bore you with a lot of figures, but I do want to call your attention to exhibits which list some of the problems that are engaging the attention of over 400 of the important national associations. They show 60 different problems being faced cooperatively by one or more trade groups. Fourteen of these problems, such as advertising, statistics, codes of ethics, education, simplification and standardization, trade practices, and some of the other problems I mentioned a few moments ago, are each being faced by more than 100 different groups.

This picture is not complete but it indicates how wide is the battlefront and how diversified are the problems which are carried out cooperatively between business, both large and small, and the Department of Commerce.

It is evident from what I have said that there are many examples, and that we do not lack illustrations of the power and ability of organized Government and organized trade and industry to cooperate and to do national planning. Those who suggest that it needs to be done may not recognize that it is already being done.

The reason for this condition is not that those of us who are engaged, and have been engaged, in carrying forward these cooperative enterprises have failed in terms of action; we have failed in interpreting the social and economic values of what we have done and are doing.

My second message, therefore, to you today is that we in the Government, who have this opportunity for leadership expressed through service, and you in the trade associations, with a similar responsibility for your individual trades and industries unite in a common platform; establishing, first, a larger conception of what we already have accomplished, and second, carry through in terms of action, in terms of trade and industrial groups headed by men of action, the economic planning that is essential if we are to find not only the immediate answer to our problems, but if we are to lay the foundation of future prosperous America. We must apply the lessons we are learning from the depression through which we are passing.

I remember the day after Armistice Day, coming out of the Cosmos Club and meeting one of the men of business in this country whose name is almost a household word; he had been an active member of the War Industries Board. He said, "I am almost sorry the war is over, because we are just learning, out of the stress of war, lessons with regard to the profitable management of business which we shall probably now forget, because the pressure for holding to these lessons is now removed."

I have much this same feeling about the tail-end period of the present business depression.

I believe that every man in this room should take two inventories. First, he should inventory the activities of his organization in terms of the present problems of the business, and relate those activities, when they are unrelated, to the present problems. Second, he should inventory the work of his fellow associates, to see whether it is possible in the experience of one group to find an answer to the problems in another.

Take for example, the question of immediate employment problems and long-time employment programs. Some trade organizations have grappled effectively with the problem of employment, have organized their members to a common understanding of the present emergency employment situation, and have succeeded in establishing a leadership and a common purpose in employment policy; other associations have not touched this immediate problem in any way.

The facts regarding our merchandise operations in this country are now being made available through the compilations of the Census of Distribution. How many organizations will take their distribution problems and, in the light of the facts that are developed, set up planned programs of market analysis or of merchandise studies (depending upon whether they are manufacturers or merchants), and, in the light of these new facts for the first time available in any country, re-appraise their present practices? There is no way of determining the exact degree of preventable waste in a sales volume of 53 billions of dollars of retail sales, nor to know the total possible savings in wholesale sales of 70 billions of dollars. We can estimate only that these preventable wastes are enormous.

Economic planning cannot come from one plan superimposed from the top. Our economic planning supposes creative thinking and planning of individual business men guided by a co-ordinated program of major problems, including:

1. The stimulation of long-term planning with social as well as economic objectives.
2. Budgetary and statistical control of industrial operations.
3. Elimination and adjustment of seasonal fluctuations.
4. The stimulation and development of new industries.
5. The cost analysis of commercial and marketing operations.
6. The analysis of markets at home and abroad.

# *Statistics Tell Dramatic Story of Durene's*

# Wear Cotton Drive

*E. L. Starr, director-general, Durene Association*

EASILY the most significant textile promotional activity during the first half of 1931, was the "Wear Cotton" movement. This nation-wide drive, sponsored energetically by both trade associations and individual companies, has been signally successful in stimulating consumer demand for cotton merchandise, and in developing cotton-consciousness generally. An important position in the campaign was assumed by the Durene Association of America, and the drive conducted by that organization did much to increase public appreciation of high quality mercerized cotton merchandise. Statistics just compiled by the Durene Association covering its program for the first half, testify impressively to the scope of the work undertaken.

**STATISTICS**

***of Six Months' Durene Promotion Work***

✦

90,000 Persons Addressed
172 Fashion Shows, Exhibits and Meetings
60 Cities and Towns Covered in 15 States
Under Sponsorship of:
4 Home Economics Associations
16 Women's Clubs
11 Federations of Women's Clubs
7 Chambers of Commerce
36 Civic Clubs and Cotton Exposition Committees
13 Educational Institutions
12 Home Demonstration Bureaus and Better Homes Organizations
4 County Organizations and Mills
75 Stores
1 Parent-Teacher Association

Beginning with the inauguration of the "Wear Cotton" movement in Gastonia, N. C., in early spring, requests to "dramatize" fine cotton and thus help to speed up yarn and merchandise sales, began pouring in at the New York offices of the association. Under guidance of Ernest L. Starr, director-general of the organization, a comprehensive drive along a wide front was instituted, and the results of the drive are still showing themselves, in increased demand for yarn and finished merchandise alike.

### Figures Tell the Story

But let the figures speak—the Durene movement covered 172 fashion shows, exhibits and meetings, which drew audiences aggregating 90,000 persons. These gatherings were held in 60 cities and towns located in 15 States. With the aim of localizing effort and thus increasing effectivity, the association held the events under the sponsorship of civic and municipal organizations as listed in the panel on this page.

The early requests for promotional events came to the association mainly from key communities in the leading cotton-growing States, but soon the circle widened to include most of the southern and northern states. The requests urged that smartness, beauty and utilitarian qualities of fine Durene fabrics be highlighted in such a way that retail sales might be increased. It was pointed out that consumers, even in the cotton States, were apathetic about cotton fashions, and that retailers there did not fully appreciate the sales possibilities of the better quality cottons.

Results, according to Mr. Starr, were quick and convincing. Stores in over 70 cities and towns have reported increased cotton sales to the association, and over 50 important retail stores have voluntarily advertised the Durene standard of quality, during the last month.

### Wide Range of Merchandise

An example is the case of The Vogue shop in Chattanooga, Tenn., which experienced such sharply augmented sales of Durene cotton that, in arranging a static display at the Read House, this store exhibited a placard saying:

"Sorry—But the demand for Durene garments has so depleted our stock that we are unable to make a representative showing."

Durene Association fashion shows and exhibits accented a wide range of carefully styled merchandise. Hosiery, underwear, shirtings, lounging robes, sportswear, country clothes, tailored town dresses, afternoon frocks and elaborate evening dresses were shown.

In advance of each showing a complete merchandising plan was put through. The retail stores in each city or town were carefully surveyed by Durene Association representatives and quick means provided to buyers to follow up resources for merchandise identical or similar to that to be shown on the runway as well as general supplies of Durene hosiery and underwear. Meetings in many communities were repeated two and three times in order to accommodate over-flow audiences.

Mr. Starr, and members of his staff, including Miss Grace Walton and Miss Doris Hinman, educational lecturers, and Miss Kathryn Day, fashion adviser, have addressed the Durene "Wear Cotton" meetings. Miss Walton and Miss Hinman spoke before 70,000 persons.

# Diversification of Product

## *May Bring Unexpected Losses*

THERE is a devastating flare-back from ill-advised increase in diversification of product in the cotton-textile industry according to a statement issued last week by George A. Sloan, president, the Cotton-Textile Institute. The analysis which follows is interesting advice not only to cotton mills but to any other kind of textile mill which may be planning entry into some new field for production:

*George A. Sloan, president, the Cotton-Textile Institute*

While not wishing to discourage mills from attempting to diversify their products when plans of this kind are the result of exhaustive study and research, we wish to speak a word of caution against ill-considered diversification arising out of the present contracted market for cotton goods. Some mills which formerly made one or two varieties of cloth or yarn are now undertaking to manufacture a great many varieties, frequently of a kind entirely foreign to the particular mill's previous experience.

When mills pursue this policy in an unsound manner, the effect is to increase the tendency toward demoralization in the industry as a whole and this is likely to be felt by the particular mill in a very short time although it may momentarily feel that it has gained an advantage by this additional diversification.

### Adverse Effects

The adverse effect is felt in both manufacturing and merchandising.

As to manufacturing, such diversification seriously increases cost far above a competing mill thoroughly balanced and operating continually on the fabrics for which such mill was designed and built. Successful competition today requires maximum efficiency in both machine and labor which is not possible when machine specifications are not the exact requirements and when labor is shifting. Constant operation in the same channels permit efficiency studies and improvements from day to day which are in no way possible in shifting operations. This fact is quickly confirmed by sound cost accounting.

When such shifting is attempted unusual expenditures are necessary in loom equipment and changes are usually made in yarn making that forces adaptation of equipment beyond its most efficient operating range. These departures involve items of cost difficult to foresee and quickly place the mill in an adverse competitive position. Before such departures are made by a single purpose mill or before any mill decides to depart from its range of cloth constructions, it should look carefully into its plant management and consider the cost of the additional skill necessary or else include an important item to cover the cost of experimentation while plant executives are learning what is common knowledge in competing plants. Then look to cost accounting to be sure that fabric cost is fully and correctly developed. When the effects of forced adaptations of equipment, low machine efficiency because of unbalanced processes, and many other factors that can be present, are fully developed, a cost might result that much more than fully offsets the apparent increase in manufacturing margins.

Correction here may involve replacing unfit machinery that may not be obsolete for many years if continued on present lines. Furthermore, heavy expenditures for special supplies may be made to meet a temporary market condition necessitating amortization of such cost over a short period.

As to merchandising also, the effects are bad. The diversified mill finds it is competing with mills that have concentrated their production in a long familiar field and are thus likely to achieve minimum costs. Their experience may be yielding them a fair profit, which is apt to be destroyed by the added production of a newcomer. At the same time the newcomer himself may be on a losing basis. Moreover, the more a mill diversifies, the more it gets away from this settled method of distribution with which it is familiar, the less intelligent and effective become its methods of distribution due to entrance into new fields. The competition, therefore, becomes more indiscriminate.

### Increases Costs

With diversification thus tending to increase the cost and also to diminish the price even further below cost, the general result of this rush to increased diversification is injurious to the industry. Quite frequently a mill will find, after it has devoted effort and expense to diversification and after it has found this to result in less output, and less satisfactory output, that it is worse off than before it took this step and that the market is distinctly poorer than it was before. Thus diversification becomes a highly speculative activity in which the mill is more likely to lose than to win. Less effort and less risk will be encountered if the mill confines its production to its accustomed field and scope and pursues the safer course of promoting prosperity by making every effort to expand the demand for its natural product through intensive individual and group advertising.

It is realized that there are doubtless occasions—such as, for instance, the general disappearance of demand for certain goods—which may amply justify a shift or scattering of production. Nevertheless, reports reaching us from many quarters seem to indicate that there is more tendency toward diversification than can be warranted by exceptional circumstances. The impression persists that, in some cases at least, this policy is adopted without appropriate and exhaustive study of the costs involved or of the probable consequence to the mill, to the industry, and to market conditions in general.

# Microanalysis *of Fabrics*

*By Edward R. Schwarz*
*S.B., A.T.I.*

**Article XIII—"Don't Be Afraid of the Microscope" Series***

**As an aid to the analysis and synthesis of fabric structure, the microscope can be of great value to the textile designer and manufacturer. In the accompanying article, the author describes the use of the microscopic apparatus in the examination of knit goods and woven fabrics. Due to the unusual demand for issues of TEXTILE WORLD containing Professor Schwarz's earlier articles, arrangements have been made for publishing this remarkable series in book form after its run in TEXTILE WORLD has been completed.**

FABRIC examination with the microscope entails some variation in the proceedure usually adopted for the ordinary specimen. Samples are relatively large, and their surfaces are seldom sufficiently confined to a single plane to be within the depth of focus of moderately high-powered objectives. Thus, the stereoscopic binocular microscope comes into its own in this field. Not only is the depth of focus ample; but the very large working distance and the fact that the image of the specimen is not reversed make for easy handling of material. Particularly is this true where dissections of cloth are involved. The directions of motion are not reversed as seen through the microscope, and for this reason, no special training or practice in manipulation is required on the part of the observer.

There are other important differences which distinguish microscopical examination of fabric from other fields of work. Not the least important of these is the almost constant necessity for the employment of reflected rather than transmitted light for illuminating the specimen. The latter form of lighting will frequently be used in conjunction with the former—particularly when materials have been coated or impregnated with more or less transparent substances.

In connection with the foregoing statements, it is well to keep in mind the fact that practically all fabrics reflect from their surfaces only a small percentage of the incident light. Further, it will be found that of this reflected light only a very small part is caught by the microscope objective and made useful in the formation of the image. To the worker who is accustomed to transmitted light and "critical" illumination, will come many disappointments, until it is realized that the necessary time of exposure for fabric photomicrography may easily be 100 times the familiar values. For this reason the nomographic chart given in Fig. 7, Art. XI; Jan. 24, 1931, includes a scale (marked "standard time of exposure") which is graduated to make available exposures far in excess of what has hitherto been considered normal practice.

As a working suggestion, it may be stated that for an orthochromatic emulsion, used with a 400- or 500-watt illuminant and an auxiliary bull's-eye condenser, the exposure will average between 5 and 10 seconds. Much depends, of course, upon the nature of the fabric surface. A rayon satin, dyed a light shade, will require a much shorter exposure than will a woolen fabric with a milled finish. Only experience in judging the intensity of illumination as visible on the camera focusing screen will make the worker proficient. Fortunately, the range of magnifications which will be employed is far more limited than for other types of textile microscopy.

### Fabric Structure

It has already been pointed out by the author that fabric is the ultimate product of the textile industry. The intimate details of its structure therefore are of inestimable importance. Any means which will lighten the burden of the fabric analyst, designer, or manufacturer must also be of vast importance. Machines or mechanical equipment cannot serve in place of manual skill in this case. Optical equipment, however, will minimize the difficulties besetting the worker who must dissect cloth samples, or who must contrive new and improved fabrics.

Distinction must be clearly made between analysis and synthesis of fabric structure. The former is the study of cloth already made; while the latter is the working out of the method of construction for fabrics which are still to be manufactured. Synthesis is the more difficult task of the two, because of the numerous assumptions which must be made, and further, because of the quantity and excellence of judgment demanded of the synthesist. In work of this nature the microscope is of value only indirectly; but nevertheless, plays an important part. The author believes that it is not too much to say that if the designer will base his judgment on the results of thorough microscopic study of satisfactory and of undesirable fabrics alike, he will profit therefrom amazingly.

### Weave Analysis

Weave analysis (Figs. 1 and 2) should always be undertaken with the aid of proper microscopic apparatus. No one can appreciate its value who has not experienced the supreme sensation of relief and delight when, after futile attempts to accomplish his purpose unaided, he brings a stereoscopic microscope to bear upon his task. And if this device is helpful for ordinary weaves, it is a

*Article I, "Possibilities of Microscope in Textile Industry," April 27, 1929; Article II, "Types of Microscope Applicable to Textile Industry," May 18; Article III, "Handling the Microscope with Efficiency and Understanding," June 22 and June 29; Article IV, "Methods of Illumination," Aug. 17; Article V, "Useful Accessory Equipment," Sept. 21; Article VI, "Textile Micrometry," Oct. 26; Article VII, "Mounting Textile Specimens," Dec. 14 and Dec. 21, 1929; Article VIII, "Preparing Cross-Sections of Textiles," Jan. 18 and Feb. 15, 1930; Article IX, "Recording Data," May 24 and May 31; Article X, "Photomicrographic Apparatus," Aug. 16 and Aug. 23; Article XI, "Photomicrographic Technique," Dec. 20, 1930, Jan. 24 and Feb. 28, 1931; Article XII, "Microanalysis of Yarns," April 18, May 23 and June 27.

Attention is called to the omission of the pi sign in typing two of the essential formulas which appeared in the article "Microanalysis of Yarns," April 18, 1931, page 53. The corrected formulas read as follows:

$$T_{SP} = \frac{Q_B}{\pi\ K_S\ D_S} \qquad T_P = \frac{Q_{(B-A)}}{\pi\ K_P\ D_P}$$

*Fig. 1. Twill weave*

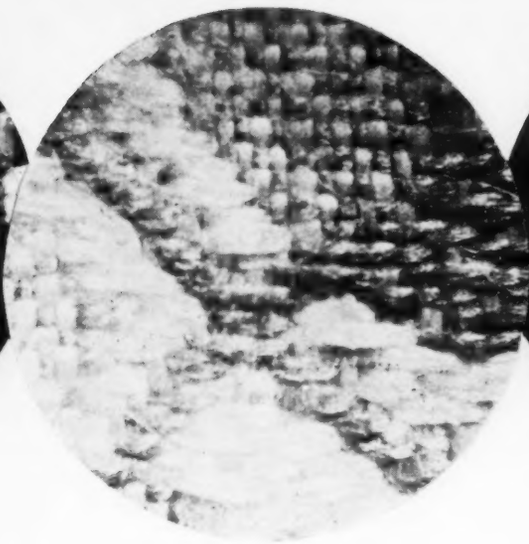


*Fig. 2. Jacquard weave at high power*

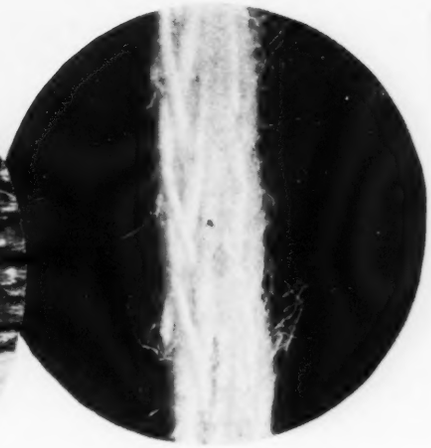


*Fig. 3. Cotton braid*

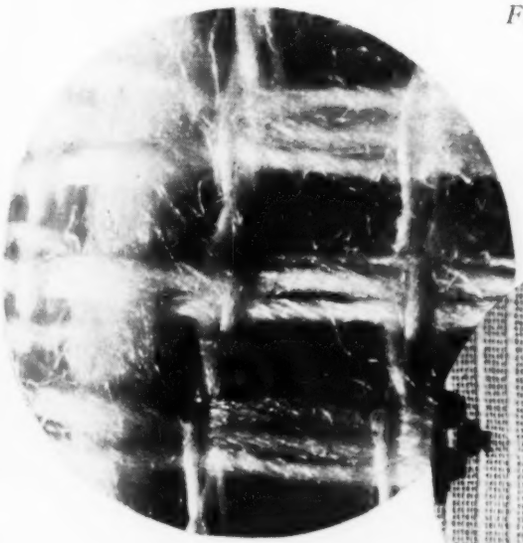


*Fig. 4a. Leno weave*

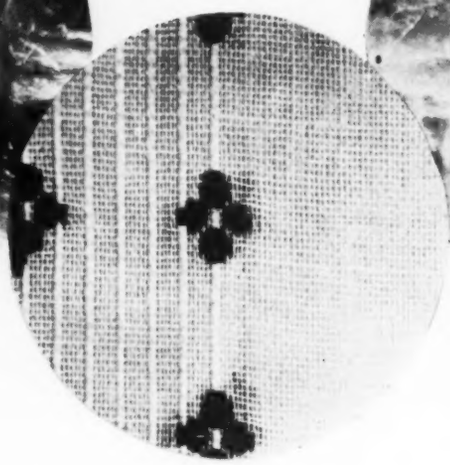


*Fig. 5. Dotted swiss muslin (low power)*

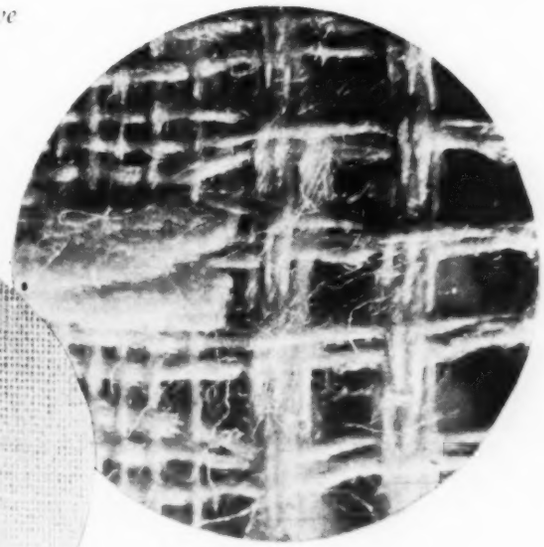


*Fig. 4b. Imitation leno*

necessity for such things as lenos, lapetts, swivels, plushes, terry cloths, knit goods, laces, etc. In such cases, not only the interlacing of yarns must be studied, but also the crossing, knotting, twisting, and looping of the yarns about each other (Fig. 3).

Lenos, for example, cannot be dissected by the usual methods. One set of warp yarns remains always above the filling, while the other set remains always beneath (Fig. 4). Binding, in such a fabric, is accomplished by crossing the two sets of yarn between picks. Obviously, twist cannot be removed by dissection, and still remain in place. If the filling yarns are removed, all trace of the leno pattern will be lost. Furthermore, these yarns must either be left in place and intact, or be removed entirely. There is no possibility of partially picking them out. It is apparent, therefore, that the fabric must be examined in its normal condition; and, except for the coarsest of weaves, this is a terrific strain on the unaided eye. Simple magnifiers help somewhat, but they lack depth of focus and fail to give the beautiful stereoscopic —or three-dimensional appearance—so needful to clarify the structure. It is not enough to get the simple spacing and arrangement in a single plane. The observer must also know which yarns are above or below certain others.

For lappett and swivel weaves, which are being studied for reproduction, removal of the extra warp of filling yarns respectively, leaves no possibility of check-up without using a fresh repeat of the pattern (Figs. 5, 6, and 7). The number of yarn crossings, regardless of the complexity of the design, can be determined under the microscope without disturbing the fabric. In swivel designs, where the extra filling yarn is frequently bound into the structure, and also where several bobbins may be used in conjunction to form portions of the same design, the examination of the goods under the microscope is much the simplest way of positively determining the pattern.

The analysis of a piece of lace, where the yarns are firmly fastened together by loops and knots, is almost impossible by dissection or simple inspection; but the magnification and resolution provided by optical equipment make the study a simple one (Fig. 8). Netting, in which the yarns are knotted together, can likewise be studied to advantage in the same way.

### Knit Goods

Knitted fabric may be made from a single yarn looped about itself, or from a number of yarns interlooped in

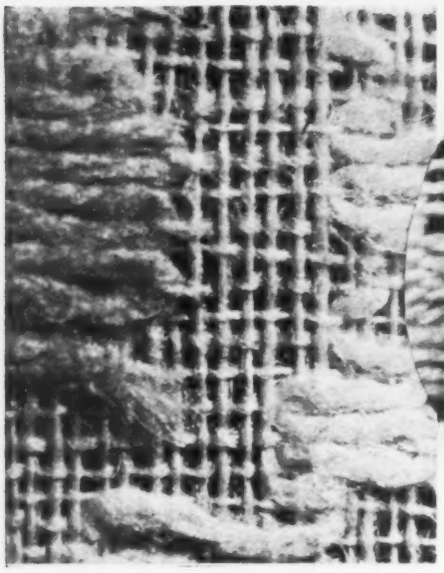


*Fig. 6. Lappett weave (two frame)*

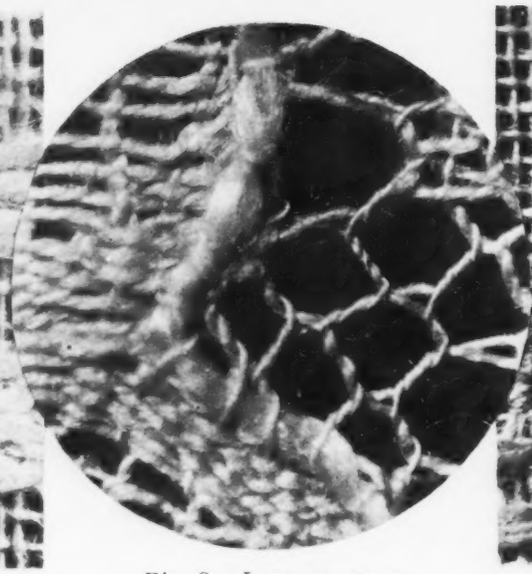


*Fig. 8. Lace structure*

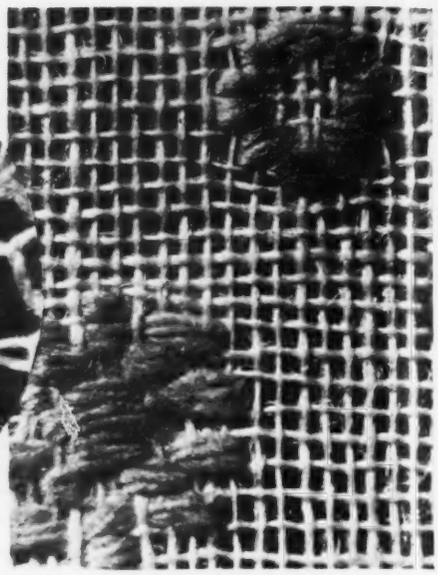


*Fig. 7. Swivel weave*

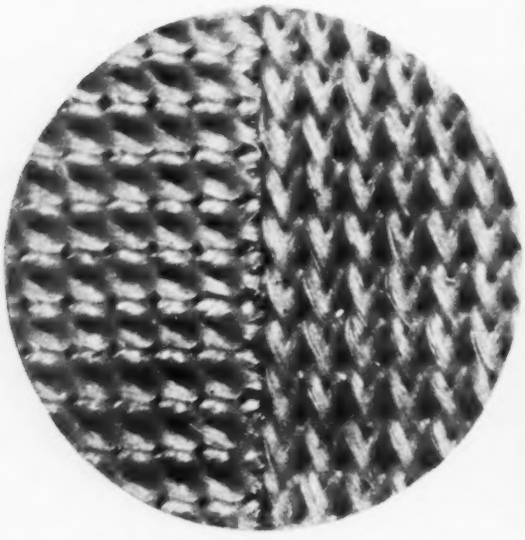


*Fig. 9. Milanese, back and front*

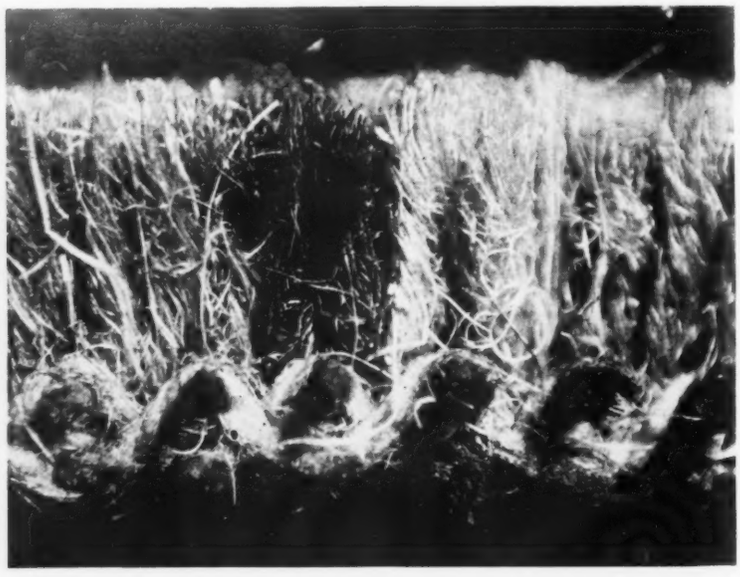


*Fig. 10. Tapestry carpet, warpwise section*

varying degrees of complication. For any of these cloths, the thickness of the fabric and the three-dimensional character of the loops necessitate the use of stereoscopic apparatus for best results. Cases in point might be listed to any number. It is sufficient to say here that not only may the types of stitch be identified almost at a glance, but that the results of plaiting and reinforcing can be shown clearly. The component yarns will be revealed in their exact relation with each other. If the reverse side of a warp-knit fabric is examined, for instance, the system of racking employed is at once evident (Fig. 9). The shape of the loops, fraying of the yarns, regularity of wales and courses, spacing of these latter, the types of yarn involved, etc., can all be seen.

Pile fabrics of all sorts are increasingly becoming the subject of more and more intensive investigations. Positioning of the pile tufts, and their height, protection, binding, and uniformity are all moot questions. The structure of the backing—the placement of stuffer warp yarns—the accuracy of color registration for tapestry rugs, as well as for chenille and axminster constructions, etc., are all of importance. It is only necessary to cut the fabric parallel with warp or filling, as the case may be, and then to examine the cross-section, thus exposed (Fig. 10). No embedding is required. It will be of great interest to be able to see the variation in fabric thickness in any material, but particularly so in pile fabrics.

Other measuring devices employ known or unknown pressures exerted by a foot or stem connected to a gage of some kind. If the pressure is known and light, the result is an approximation of the average of the thickest portions. It averages the longest fibers and tufts in a pile structure. Heavy pressure deflects the tufts markedly. Optical examination allows the observer to measure the undistorted thickness of fabric, to an average of the estimated median, minimum, or maximum fiber terminations, and to measure the pile independent of the backing. Measurements of the angle of inclination of the tuft, and the actual length of yarn per tuft are also easy. This offers a much greater flexibility of investigation. For a study of conditions throughout the fabric, it would necessitate cutting to expose the cross-section. This, of course, is a disadvantage.

The method of tying double fabrics is often somewhat difficult to determine from a woven sample. The microscape plus simple dissecting instruments will locate the binding yarns quickly. *(To be continued)*

# Questions... *and* Answers

## Bleaching Bradford-Spun Yarn

*Technical Editor:*

*While we have bleached Bradford yarns for some time with considerable success, we seem to have a great deal of difficulty on the yarn of one particular spinner of whose product we are enclosing two skeins in the oil for your examination.*

*It appears that when this particular yarn is bleached it has a dead, grayish white appearance, instead of the usual brightness that is so desirable, and also it has grayish streaks throughout. We are wondering just where the trouble may lie. On other stocks we are bleaching, this difficulty does not seem to occur.*

*The stock with which we are having difficulty seems to be gray in the oil and to retain this appearance after scouring. It does not have the life that so-called brighter wools have. In view of this condition, we have increased the amount of soap and soda ash, the latter to 4 lb. to 100 lb. of yarn, in an effort to see if a more thorough scouring would overcome our problem, yet it does not seem to do so. We have gone as far as to scour the yarn so hard that it felts; still it is not bright, and the grayish streaks are apparent in the yarn even when it comes out of the scouring or rinsing bath prior to bleaching. When the yarn has been peroxide bleached, the difference is even more apparent.*

*We understand that the stock from which this yarn is spun is all pulled wool, and are wondering if that may be the cause of the lack of life. At any rate, if you have any suggestions whatever we should greatly appreciate having them.* (7605)

An examination of the skeins shows that the yarn is very uneven in diamter. The grayish spots appear under the microscope to be accumulations of dirt and oxidized oil.

The skeins were scoured for 15 minutes at 120°F. in 3% of olive fig soap, ¼° of trisodium phosphate, 1% of scouring oil, and 1% of a protective colloid; rinsed thoroughly, extracted; and dried. The yarn seemed bright enough after the scour, and the grayish cast and spots were not noticeable. A subsequent bleaching resulted in a very bright white, with no apparent blemish. It must be kept in mind that various grades of wool will bleach differently; and since the stock from which this yarn was spun was pulled wool, you cannot expect the same degree of brightness as in the case of high-grade wools.

Wool fiber is sensitive to alkalis, even the milder ones, and if given too harsh a treatment with alkali and then bleached, the result is not satisfactory. In giving the samples the treatment outlined above, the scouring oil was added to eliminate any oxidized oils and to aid the soap in emulsifying the grease in the fiber. The protective colloid acts as a buffer for the alkalis present in the scouring bath, and prevents them from injuring the fiber. The peroxide method of bleaching was employed, 1% of the protective colloid being added to this bath.

▼

## Setting Twist in Rayon Yarn

*Technical Editor:*

*We wonder if you can give us any pointers on the conditioning of rayon with high twist, for the weaving trade. We are dyeing and twisting some 100/2, 150/2, and 200/2 rayon with 20 turns left twist, for weavers, but we are having some trouble with the yarn kinking when it runs slack off the creel. Also, it does not seem to be supple enough. We are using a mineral oil for conditioning this rayon after dyeing.* (7625)

Your difficulty is evidently one of improper setting of twist. The twisted yarn should be steamed in a wet exhaust steam long enough to penetrate the center of the package. The length of time will have to be determined by trials in your own steam box, as the thickness and density of the package, as well as the temperature and amount of moisture in the steam, influence the time needed to condition the yarn properly. The yarn should stand about 2 hr. to overcome wet spots, and then should be creeled. If it is allowed to stand in a dry place, the kink may return. If the twisting is being done on cotton ring twisters with water troughs, the matter of setting the twist in viscose yarns is even simpler. A wire or rod should be placed about 3 in. above the water level and in such a position that the yarn will lightly touch it in passing to the rolls. A thick wick of loose character, such as several thicknesses of cheese cloth should hang over the rod and into the water. In this manner the yarn is slightly moistened, and it will be found that little or no steam will be necessary to set the twist. This does not hold true when using acetate yarns.

To soften the yarn before spooling, 3 to 4% of oil may be used; but we believe that the lack of suppleness is due to the type of rayon used, rather than to a condition brought about by improper processing.

▼

## Mildew Spots on Cotton Netting

*Technical Editor:*

*We dye cotton netting for rubber factories and have processed considerable quantities of these goods for the past several years without any trouble. However, within the last week we ran into difficulty with a batch. To show you the trouble, we are forwarding under separate cover a sample of the netting in its original natural shade, and a further sample showing what happened after it was dyed ecru shade.*

*The goods are boiled out with soda in softened water (zeolite water softener), and are also dyed in softened water. In the case of the batch with which we had trouble, the goods were boiled out and extracted on Saturday morning and allowed to lie over the week-end while still damp. They were dyed on Monday, when the brown spots and streaks showed up. The goods were dyed with Diphenyl Catechine BB, Chrysophenine, and Diphenyl Blue 5G.*

*Five pieces of the goods processed as mentioned above, came through with the defects you will note on the sample, whereas the balance of the bale, consisting of a further five pieces, was processed on Tuesday without being allowed to stand over while wet, and gave no trouble whatever. Can you tell us the cause of the brown spots and what we should do in case it again is necessary to let a batch stand over a week-end after being boiled out?* (7621)

Spots arise on damp goods from two main causes. In the first case, a trace of unfixed dye remains in the goods and gradually moves by capillary action to the edge of the creases and folds. As each portion of water evaporates, more color is brought to it until, when the area is dry, there is a deep discoloration or perhaps a bronziness, due to the excessive amount of dye at that place. Such discolorations are seldom spots, but are usually streaks; and show a

darker color of the same sort as the good part of the goods. The spots on the sample submitted do not appear to be of this sort, as they are true spots rather than streaks, and also are of an entirely different color than the goods.

In the second case, spots causing discoloration or decolorization occur on damp dyed goods when and where a colony of fungus or mildew develops on the surface. Both *Penicillium glaucum* nd *Aspergillus niger* are likely to develop rapidly, especially at this time of year, and may cause the most astonishing changes of colors on cotton and silk. One day the color will be one shade, and the next day the shade will be entirely different. The dyes or the dyeing method have nothing to do with the condition, as all classes of dyes seem to be affected. The best and cheapest remedy is to wash the dyed goods with zinc sulfate, using 1 lb. of the zinc salt to each 100 lb. of goods. This is safer than formaldehyde, as it does not affect the shade of the dyeing. The spotted goods will have to be stripped and redyed. Whenever it is necessary to let damp goods lie over a week-end, use the zinc sulfate and they will not be affected by mildew.

▼

## Slub Effect in Osnaburg Filling

*Technical Editor:*

*I inclose a small sample of osnaburg and should appreciate very greatly information as to how the slub effect in the filling is obtained. (7617)*

Although the sample was not large enough to note the distances between slubs, the yarn could probably be either a Himalaya or slub but appears more likely to be the latter. There are several ways of producing a yarn of this nature.

Attachments for the purpose can be obtained from several of the machine manufacturers, especially those manufacturing spinning frames. One such builder makes a spinning-frame attachment which allows the manufacture of several different types of novelty yarns, such as flake, slub, bourette, nub, Himalaya, etc. Smoother and better yarns are made by such attachments, but it is possible to make slight alterations on some of the spinning frames and produce a similar yarn.

The principle is simple, but various methods of regulating the slub or thick spot at certain intervals are used. A single roving is put in the creel, possible 1.50-hank. In regular spinning, thick and thin spots in yarn can be made by hesitating of the top roll; but for slub yarns either the front roll can be retarded at regular or irregular intervals while the second and third rolls keep an even speed, or the front roll can be held at an even speed and the second and back rolls be made to speed up at certain intervals, giving the bunch or slub. The latter method is the most practical.

When an attachment is used, the slubs or bunches are regulated by special

links connected onto a bicycle type of chain. By putting on more special links, which are larger than the regular, the slubs can be made longer or more numerous, and by taking links out they can be made shorter or less numerous. The special links, as they come around, force gears out of mesh, which stop the feed. Sometimes special gears are used which have a built-in clutch. In some mills the "pattern" chain extends to the ceiling, having many special links for a variety of slub effects in the same yarn.

▼

## Hosiery Uneven in Shade

*Technical Editor:*

*We are inclosing three sample stockings. No. 1 is the hosiery as received from the mill. Nos. 2 and 3 show the results after dyeing. You will note that the dyed samples are uneven in shade. Most of the trouble occurs in mixtures producing the shades of gun metal, purple, light tan, or similar shades. We use neutral colors for our shades and have a zeolite water softener in the mill. Kindly advise us how to overcome this difficulty. (7634)*

An examination of sample No. 1 shows nothing whatever wrong with the make-up of the full-fashioned stocking. The black and two blue pencil marks disappeared entirely on boiling off. Nos. 2 and 3 show that the dyeing is very uneven, especially on the mercerized cotton top. Apparently the formulas used by the dyer were not correct, and an addition of dyestuff had to be made. It is our opinion that this addition was not made properly, or that unsuitable dyestuffs were employed.

However the information you have given is much too meager. We do not know your methods of dyeing, whether you dye in a boil-off bath or in fresh bath after your goods are boiled off. It is quite difficult, therefore, to advise you what to do to overcome your difficulty. It seems probable, however, on both of these shades you have tried to modify the cotton part of the stocking in a salted bath, which was too hot.

In dyeing cotton-and-silk hosiery, if the silk needs toning to pattern, acid or neutral dyes can be added with good results in the original bath; if, on the other hand, the cotton needs additional shading, the way to do it is in a fresh bath without any salt, adding glauber salt—if necessary—after the goods have been run for 10 to 15 min. There are a few cotton dyes which are level dyeing even when added to a salted bath; but as a rule, it is safer to use a new bath and make any necessary additions in a fresh bath, using dyestuffs which have been tested and selected for this purpose. When this rule is adhered to, uneven dyeing can be eliminated.

Shaded dyeings as represented in the samples under observation may be improved by treating the stockings in a solution containing ¼ to 1 lb. of a good penetrating agent, to 100 lb. of the material, together with 1% of Turkey red oil, and boiling once or twice at 20-min. intervals.

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## Waterproofing and Fireproofing Awning Material

*Technical Editor:*

*Since locating here we have had several inquiries regarding waterproofing and fireproofing awning materials. We have the equipment to perform this work. We are interested, therefore, in learning of the latest solutions used for these purposes. We also should like to know if it is possible to mix waterproofing and fireproofing compounds in one bath to enable us to do this work in one operation. (7624)*

The following treatment is recommended for fireproofing awning goods commercially: Pad the goods in a solution of 6° Tw. aluminate of soda, dry; repeat these operations, then fix with equal parts ammonium phosphate and ammonium sulfate in the cold at a strength of about 1 lb. per gal., rinse, and dry.

It does little good to waterproof the fabric, and does increase considerably its tendency to mildew. The finish is gradually leached out and decomposed by city rain water.

We know of no combined process which gives a weatherproof, fireproof and water-resistant awning finish. The fire-proof inside or drapery finishes are soluble when carried out-of-doors. An insoluble outside or weather-proof, fire-resisting finish will be stiff and harsh; and goods so treated will be hard to sew and will crack and tear easily.

▼

## Glazed Finish on Chintz

*Technical Editor:*

*I am inclosing herewith several samples of glazed chintz. Will you kindly inform me what equipment is used to produce this high glaze and also inform me what materials should be used in the finishing bath and in what quantity. (7623)*

To produce the finish as shown on the samples of glazed chintz, the printed and dried cloth is put through an ordinary two-bowl starch mangle. The starch mixture is made by boiling 100 lb. of cornstarch and 10 to 20 lb. of a good grade of sulfonated-tallow softener in 100 gal. of water. The amount of softener can be varied to obtain the desired softness or hand. The cloth is then dried, conditioned, and run through a friction calender. The bowl of the friction calender should be hot and should have a cloth-covered wooden cleaning bar resting against it. By passing a bar of paraffin or beeswax several times over the hot bowl, enough

wax will be softened and transferred to the bowl. The cleaning bar will serve to take off the excess, and at the same time, to put back a small amount on the roll at each revolution. This will aid materially in producing the desired luster or glaze. We caution you against using an excessive amount of wax in this manner. The cloth should then be short framed to even the width, and it is then ready for the put-up.

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## Throwing Hosiery Tram

*Technical Editor:*

*In the process of throwing 13/15-denier, seven-thread five-turn material for hosiery tram, do you feel it advisable to steam this material on a 5B bobbin which is made of wood and fiber in order to set the twist. If this is feasible, please advise how long it should be steamed. This information is also required for setting the twist on five-thread, ten-turn material. The soaking solution consists of neats-foot oil and olive-oil soap. Information is also desired as to best method of steaming cones in order to set the twist on the above-mentioned types of yarn, and also what type steam box is recommended for this class of work. (7611)*

It is necessary to steam the seven-thread, five-turns and the five-thread, ten-turn tram on 5B bobbins so as to set the twist and avoid kinks in cone winding and knitting. A 5B bobbin with a Bakelite top head, a maple barrel, and a dogwood bottom head (treated with Textalac) will stand steaming indefinitely.

An ordinary 5B bobbin with a fiber top head and a maple barrel or dogwood bottom head if treated with Textalac, will also stand a limited amount of steaming.

The steaming time depends on the steam pressure at steaming room. Dry 2 min. and cool 5 min. If this does not set the twist, repeat the process until the twist is set properly. Increase the speed of the traverse on your 5B's so as to get a cross wind of the thread on the bobbin so that the steam can penetrate and reach the silk on the inside of the bobbin. Test the setting of the thread when the silk is wound down to about a quarter-size bobbin.

The wind should be between 40 to 50 wraps across the bobbin and back, or a complete up and down stroke of the traverse. Steaming of the cones should be avoided if possible, as the steam roughens the tops and retards unwinding. If steaming becomes necessary, steam only 1 min. at a time to avoid softening the cones. Use metal or porcelain caps on the cones if the cone must be steamed.

A good steaming box can be built as follows: Make the size large enough to hold a truck load of bobbins on trays. Place the whole box in an iron pan to prevent the condensation from rotting the floor. The steam inlet and drain outlet should be in and out of pan. Taper the roof so that the condensate drains to the side and down into the pan. Use heavy perforated steel plates for the floor to distribute the steam uniformly into the silk. The box may be made of sheet metal and kept free from rust with paint. Carefully avoid hot water dropping on the silk, as it melts the gum and causes hot-water marks in hosiery.

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## Believes Efficiency Men Should Have Textile Background

*Technical Editor:*

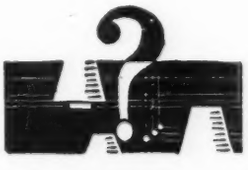
I have read with much interest the comments on efficiency men made by F. A. Hayes in the April 18 issue, page 59, and the additional comments made by Franz E. Baker, in the May 2 issue, page 84. I am employed in the capacity of efficiency man in a mill of about 80,000 spindles; and before being transferred to the efficiency department, I was in the ranks of the operatives for a number of years. Under these circumstances I well understand the attitude of the operatives towards these men.

The usual reason why efficiency men are criticized is that they do not explain carefully enough the work which they are attempting to do. They should be congenial and should make it clear to the operatives that they are measuring the job and that they are not loading on more work at the same compensation. I believe that, after an intelligent study has been made and a set-up established, the employees should be paid in proportion to the original rating, by production premium. Efficiency men, in common with all other workers, are not immune from making mistakes; and if, after a set-up is established, it does not appear that the performance expected can be attained, the studies on which the set-up was based should be reviewed very carefully.

A basis for other criticisms of efficiency men lies, in my opinion, in the fact that these men are frequently not experienced in the work of the plant or in that of the department which they are studying and reorganizing. To my mind, it is very foolish to take a school boy direct from the halls of learning or a bank teller fresh from the teller's cage, give him a stop watch and time-study pad, and expect him to establish a system satisfactory to both the employees and the company. The ratings established by such a man might well be questioned.

A man is far more suitable for this type of work if he has been an actual operator doing mannual labor in the mill. The promoting and training of an operative for time-study work is more likely to secure the cooperation of the workers, because this practice will somewhat reduce prejudice, curb friction, and limit criticism. The fact that the efficiency studies are conducted by a man with whom the operatives have worked shoulder to shoulder seems to inspire efficiency. GEORGIAN.

**Inquiries should give the fullest information possible; and if damaged material is involved, a sample should be sent. We give no consideration to anonymous inquiries and do not undertake routine analysis of yarn or fabric, or investigation involving unusual expense.**



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## Bleaching Spun Silk

*Technical Editor:*

I was interested in reading on page 49 of the June 6 issue of TEXTILE WORLD a question and answer on the subject of bleaching spun silk. The explanation starts: "It is a rather ticklish problem to bleach spun silk, as this material has been treated harshly in preparing it for the weavers and knitters."

It is agreed that bleaching spun silk is somewhat of an art, but the assertion that this material consists of stock which has been treated harshly in preparing it for weavers and knitters gives a bad impression to users of spun silk.

Of course, the raw stock from which spun silk is made must be degummed properly in preparation for its subsequent manufacture into yarn; but this treatment is carefully controlled chemically by all spun-silk producers to safeguard against any undue action by chemicals of a strong alkaline nature. This allays the chance of harsh treatment. Some years ago the writer was identified with the spun-silk business and had some experience in so-called "scouring of spun-silk goods." He wishes to offer this information to persons handling fabrics made of this material.

There is little or no gum in spun-silk yarn, and many who finish these fabrics give them a regular boil off. When this is done, the fabric is ruined and the luster lost. Fabrics made entirely of spun silk need only to be washed in a warm, neutral, olive-oil soap solution to remove any loose dirt which may have accumulated while manufacturing was in progress. This is best done by circulating the material in rope form in a bleaching beck. Usually a 15- or 20-min. soaping is sufficient, and then two rinses. The bleaching is carried out in the same type of beck.

The bleaching formula is excellent as prescribed. The thought in mind was to show how easily spun-silk fabric can be spoiled by a hard boiling, and then passed back to the yarn manufacturers.

GEORGE W. SEARELL,
Chemist, KAHN & FELDMAN, INC.

# Rival Unions in Silk Centers Vote to Strike; One at Once, the Other Aug. 3

LABOR unrest which has been vaguely manifest in the silk industry for some time, began to assume definite form this week, and there were possibilities that the principal silk centers in Pennsylvania, New Jersey and New England might be affected. At moment of writing, however, the problem was more potential than actual. The National Textile Workers' Union, which is Communist controlled, held a meeting in Paterson, N. J., Monday night, and voted to call a strike, effective Wednesday, which the committee in charge claimed would affect the Paterson, Allentown, Easton, Pawtucket and other silk districts. On Monday night also, the United Textile Workers, an A. F. of L. unit, which recently merged with the Associated Silk Workers, held a meeting in Paterson and voted to call a strike effective Aug. 3.

Immediate results of the National strike call on Wednesday were minor, so far as Paterson was concerned. The actual number of men responding could not be learned, but it seemed to be few. The opening of the strike was without untoward incident. The National claims a membership of 3,000, out of an estimated total of 20,000 silk workers in the Paterson district.

It is tacitly understood that the actual enforcement of the strike of the A. F. of L. unit will depend on how the Communists' strike develops. Officials of the U. T. W. made it clear that they would not permit their members to work, if the strike called by the National union develops into a general walk-out.

In announcing their plans for the Aug. 3 strike, the U. T. W. officers issued a statement to the effect that "groups which had recently come to Paterson," meaning presumably, the Communists who are behind the National, had no authority to speak in their name. The U. T. W. statement added:

"The silk industry has become so thoroughly demoralized and the conditions among the workers have become so unbearable that a general strike is absolutely inevitable unless these conditions are immediately remedied."

Demands of the National, in the strike now on, include: an eight-hour day, a five-day week, higher wages, no fines, and no night work for women and minors.

The exact strength of the National, and the percentage of representation of its membership in the different branches of the industry, is not known. The Associated Silk Workers, which had been a leading union in the silk industry for some years, controlled the weavers in the broadsilk, ribbon, hatband, and label manufacturing mills. The United Textile Workers organized the loom fixers, twisters, warpers, winders, reed and harness workers, and other divisions. It is believed that the membership of these two merged units greatly outnumbers that of the National Textile Workers Union.

Silk manufacturers in the Paterson district were disinclined to take the strike prospect seriously, some indeed regarding it with complete indifference. There is a growing feeling among the more foresighted, however, that the real significance of the situation lies in the possibility of the strike spreading. Important leaders, who are close to the Paterson developments, were watching the situation closely; the main issue from a local standpoint, they said, was whether the radical group might succeed in getting the dyeing and printing workers to walk out.

Meanwhile, Paterson civic leaders were making preliminary plans for possible arbitration. It was understood that the Mayor's Arbitration committee had called a meeting to discuss what steps should be taken, in event the strike assumed serious proportions.

## ▶ Weybosset Resumes; Other New England Strike News

Operations were resumed at the Weybosset Mills of the American Woolen Co., Providence, R. I., on July 21 when the operatives voted in favor of calling off the strike which had been in effect for two weeks. Workers struck for restoration of wage rates in effect before cut of 12½% last December.

At the Assabet Mills (American Woolen Co.), Maynard, Mass., with the installation of automatic looms, union weavers have made a demand for increased wages resulting in conferences with mill officials. No decision has been reached.

About 400 operatives are reported back at work at the Royal Weaving Co., Pawtucket, R. I. where strike has been in progress for two weeks. About 1,300 are employed normally. National Textile Workers' Union, active in strikes in Rhode Island area, threatens to picket plant despite heavy police guard and orders against picketing.

Situation at General Fabrics Corp., Central Falls, R. I., where there were three riots, remains unchanged and management has made no move to reopen. Plant was shut down to avoid trouble from wage controversy on May 7. The rioting occurred when endeavor was made to reopen on July 9.

Edward Bloom Co., Putnum, Conn., has shut down its branch plant until July 27, owing to strike demands of 500 employees for a 48-hour week instead of 55 hours, without a reduction in wages. They also wish an increase of 5% for night work, abolition of fines for carelessness, substitution of a one-loom system for the four-loom system, and recognition of the employees' mill committee. Employees of the branch plant in New London, Conn., have also struck for the same demands. Edward Bloom, head of the company, has notified the employees of both plants that he cannot afford to meet their demands and has ordered both mills closed.

M. Salzberg & Sons, Inc., Putnam, Conn., have closed their plant on account of labor trouble; between 150 and 200 employees walked out on strike on July 16, including the night shift. The strikers are organized.

## ▶ Navy O.K.'s Cotton Parachute

The long-time dispute as to the relative value of silk and cotton for parachutes appears to be settled. The Bureau of Standards, Washington, announced this week that parachutes of domestic cotton cloth, developed by the bureau in cooperation with the National Advisory Committee for Aeronautics, have proven equal or superior to those of parachute silk in strength and tear resistance.

The cotton parachutes in recent tests by the Navy Department closely approached the performance of silk parachutes as to rate of descent, opening time, and ability to function when stored in pack for 60 days. The cotton cloth increases the weight of the equipment from 18 to 19 lb., an increase well within practical limits, it is stated.

## ▶ International Association for Testing Materials to Meet

The first international congress of the new International Association for Testing Materials will be held in Zurich, Switzerland; Sept. 6 to 12, 1931. This is in accordance with the decision of the International Congress for Testing Materials held in Amsterdam, Holland, in September, 1927. The object of the association is to promote and facilitate international exchange of ideas in the field of material testing and the Zurich meeting will be under the patronage of Federal Councillor Dr. Meyer, Head of the Swiss Department of Interior. On the association's permanent committee is W. H. Fulweiler of the American Society for Testing Materials.

## ▶ Industrial Rayon Increases Skein Length

A new large size skein of rayon yarn, having a length of about 8,000 yards has been placed on the market by Industrial Rayon Corp., it is announced. Hayden B. Kline, vice-president in charge of plant operations said the skein of increased length applies only to 150 denier and finer, and that the length had been extended to effect economy in the winding by customers.

## ▶ Wool Stock Industry Practices Adopted

All of the thirteen resolution adopted by the Trade Practice Conference of the Wool Stock Industry, held in New York just a year ago have been approved and accepted by the Federal Trade Commission, with modifications in language. This was revealed in a letter from the Federal Trade Commis-

sion to Benjamin Schwartz, Trade Relations Counsel of the Wool Stock Council, Inc.

The Commission has grouped the following rules as Group I resolutions, within the legal enforcement power of the Commission: Inducing breach of contracts; false packing or grading of wool stock; secret rebates, etc.; defamation of competitors; sale of goods below cost; commercial bribery; enticement of employees.

The following resolutions were grouped by the Commission as Group II rules as expressions of the industry: Arbitration; cost accounting; appointment of a committee on trade practices to cooperate with the Commission; repudiation of contracts; over-billing of shipments; definition of wool stock merchants.

## ▸ New Moscow Factory Makes Cotton Substitutes

An experimental factory for the manufacture of cotton substitutes from various fibrous plants, has begun operation in Moscow, according to the *Economic Review of Soviet Russia.* The plan is to use the new plant kendyr, the fiber of which is twice as strong as cotton, and ramie, which is much superior to kendyr in quality.

The *Review* states: "As a result of many new technical processes the time for converting fiber will be reduced from the former period of three weeks to 15 minutes. A little over a year will be needed to produce 'cottonin,' as the new fiber is called, from the stems of the plant. So far only two such machines for converting the fiber have been installed, but 20 more have been ordered. These will produce over 440 tons of raw fiber daily."

Ramie has of course been the subject of hopeful experiments in various textile manufacturing countries for years. Recent work along these lines in this country has been disappointing and profitless.

## ▸ New Line of Kenwood Rugs Offered

A new product has been offered to the trade by F. C. Huyck & Sons, Kenwood Mills, Albany, N. Y., manufacturers of Kenwood all-wool blankets, in an attractive, seamless, moderate-priced, all wool rug that is said to incorporate many unusual features.

The surface of the rug is firm but resilient, and has a soft underfoot feel. The ends are cut, the wool forming a binding of its own that prevents raveling.

The color tones include a range of pastels shades, and are solid or mottled. The borders are of deeper or lighter shades. The rugs are reversible. The smaller sizes are particularly adapted for bedroom and lounge purposes, and the colors, that harmonize with those of the Kenwood blankets and throws, make possible the utilization of the ensemble idea in decorative furnishings.

## ▸ "Silk Week" in Paterson Nov. 14-21

"Silk Industry Week" will be observed in Paterson, N. J., Nov. 14 to 21, under the auspices of the Paterson Chamber of Commerce, cooperating with the leading silk mills of the Paterson district. The Silk Machinery Exposition will be held Nov. 14 to 21; the national silk convention, Nov. 18 to 19; and the Paterson Silk Institute will meet Nov. 14. John J. Fitzgerald, secretary of the Chamber of Commerce, and director of the events, in announcing the dates, stated that the aim of the triple project is to stimulate public interest in the silk industry.

The silk convention will be held at the Alexander Hamilton Hotel, where leading textile men will discuss distribution, arbitration, misbranding, production and other aspects of the silk industry. The silk machinery exposition will be held at the Paterson Armory. A general invitation has been extended to equipment manufacturers to display their lines, and numerous reservations already have been made.

The following committee is cooperating with Mr. Fitzgerald in the plans: R. De Vere Hope, chairman, silk machinery exposition; C. Walter Lotte, chairman of the convention, and Ernest Barber, chairman of the Silk Institute.

## Taxi-Drivers in Cotton

**Now that John J. Consumer and his sons are beginning to taste the comforts of seersucker and other comfortable summer clothing, Charles K. Everett of the Cotton-Textile Institute comes forward with the interesting announcement that the New York taxi driver, whose life in July and August is at least a hot one, has joined the ranks of those seeking relief from summer heat by an appropriate change.**

**One of New York's largest taxicab "fleet operators" has just supplied its 2,500 drivers with washable uniform jackets made of light-weight tan cotton sheeting. These single breasted coats are of the same type as furnished by supply service companies to barber shops, restaurants, drug stores, etc., for a small weekly fee.**

## ▸ What Paris Has to Say on Cottons

A special Paris edition of *Flashes of Fashion* issued by the Cotton-Textile Institute has the following to say on the status of cottons:

"Paris adores cottons, no question of that. In the magic hands of her couturiers, the loveliest of cottons have taken on new beauty. The impression left, as one triumph in cotton appeared after another creation equally superb, was that this summer's popularity of cotton has made an indelible mark on fashions of the future. Fabrics used—velveteen for evening wraps and velveteen in stunning street clothes . . . organdie, printed and solid colors . . . broadcloth . . . voile . . . batiste . . . all treated with the art which has made Paris famous for beautiful clothes."

## ▸ Canal Silk Shipments Show 131% Increase

Raw silk shipments via the Panama Canal totaled 21,863 bales during June as compared with 9,458 bales during May, an increase of silk traffic by the all-water route of 131%, the Traffic Bureau of the Silk Association of America, Inc., reports. Overland shipments were 22,878 bales in June, compared with 30,837 in May.

## ▸ Meetings of Textile Section of National Safety Council

The 20th annual safety congress of the National Safety Council will be held in Chicago from Oct. 12 to 16. The Textile Section will meet on Oct. 13, 14 and 15 and special topics have been suggested for the program.

The Textile Section will hold a sectional meeting at Leviston, Maine, on July 31 and a similar sectional meeting for Rhode Island is planned for the latter part of September at Providence.

## ▸ Labor Limiting Bills in Georgia Legislature

Two measures just introduced in the Georgia general assembly will be of interest to the textile industry.

The first measure—House Bill No. 118—would amend the Act of 1911 limiting the hours of employment in cotton and woolen manufacturing establishments to add thereto silk and rayon manufacturing establishments. It would reduce the hours of labor from 10 to 8 out of every consecutive 24 hours, reduce the number of hours per week from 60 to 48, and would prohibit the making up of lost time by employees of these mills. The authors of this bill ask that it be rewritten on basis of 10 hours per day and 55 per week.

The second measure—House Bill No. 120—is an act to prohibit night labor for females and minors under 18 in any cotton, woolen, rayon or silk manufacturing establishment in the State between the hours of 7 p.m. and 6 a.m. inclusive.

## ▸ Limit to Cotton Futures Interest for Single Firm

The Board of Managers of the New York Cotton Exchange has decided to set the maximum limit of interest by any member, firm or corporation, and his or its affiliations, at 1,000,000 bales for delivery in July, 1931, and in all months up to and including June, 1932.

# Overseers' Round-Table

**THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page**

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## *Choosing Men for Advancement*

*Editor, Overseers' Round-Table:*

IT SEEMS to the writer that, in choosing an assistant superintendent, there should be no hesitancy in selecting the man who is smart, full of pep and on the job every minute, although he has only been with the company a short time.

While I believe in giving old employees a square deal I agree with Pete that seniority has made a wreck out of many otherwise prosperous plants. Where the seniority rule is adhered to strictly there is no incentive for a young man to prepare himself for an executive position, because he knows all the plums will be handed out to some old-timer regardless of his ability.

I am convinced that it is to the interest of both mill and employees to promote on ability. It will give the mill a better class of men and will keep the employees on their toes trying to fit themselves for a better job.

K. S.

*Editor, Overseers' Round-Table:*

SENIORITY MAY seem a method that is unfair, but if a man has served a company for a long period of time and doesn't have an opportunity whereby he may realize advancement it will tend to create a floating element.

Still, the probability of creating a graveyard for the industry by the seniority rule must be considered. Alertness is a measure of initiative that cannot be overlooked and some recognition must be made for it.

Understudies should be used regularly, due to the likelihood of needing one who can lead in a time of emergency. By having a force of understudies things will run along smoothly, and, also, when a vacancy occurs a man will be ready for the place who is acquainted with the routine and details. This will be an incentive to work and also will make a younger fellow more ambitious.

If an employee in the organization is capable of holding a higher place, give this man a chance to master it, when the opportunity presents itself, and not draft "new blood" as it kills the ambition of many, due to thinking that their efforts are not appreciated.

EAGLE.

*Editor, Overseers' Round-Table:*

THE PROBLEM of whether it is wise to promote men on a basis of seniority or ability is a perplexing one. There was a time when many plants gave seniority first consideration in advancing the men in their organization. Some few plants may still continue this policy to a large extent. However, competition, in textiles as in other fields, is so keen that many organizations have found it necessary to make seniority a secondary consideration. Seniority promotions tend to stifle initiative since passage of time rather than ability determines advancement.

I have recommended a number of men to the textile plants in the Carolinas and Georgia. The standard which I have

## *Relation of Overseer to*

"EVERY so often," Superintendent Chase addressed the overseers, "the help have something they want to talk over with the management. I won't say that these are disputes, but things that might lead to disputes if we didn't straighten them out soon enough, such as working conditions, piece rates, and a lot of other things along that line. In cases of this kind I have been wondering what you overseers considered your position to be. Should you act as a go-between between the help and the management or should you stand aside and let the help deal with the management direct?"

"I believe," said Bill, "that it is part of an overseer's job to know what his help are thinking and to keep the management posted. I want my help to come to me and tell me of anything that is bothering them and I want them to know that, if it is something I can't handle myself, I will present their side of the case to the management. On the other hand, I expect to be able to explain the management's views to my workers. Most all trouble is caused by misunderstanding, and I think that if the overseer handles any matters on which there may be a difference of opinion he is in a fine place to straighten things out, because he knows both sides and can explain one to the other. If you have the help presenting any grievances direct to the management it makes the overseer look like a mere figurehead and, what is far worse, it gives the whole affair a very serious air. I think it is much better to handle these things in a quiet, friendly manner, with both the management and the workers having enough trust in me to know that I will do my best to handle in a manner fair to all concerned."

"I admit," said Pete, "that an overseer should keep his ear close to the ground and should know what his help are thinking and should also handle everything within his control. However, I think that it is an overseer's main function to see that there are no grounds for any possible disputes and if certain cases arise where the management and the help are on different sides of the fence and don't understand each other's position, I think the overseer should step aside and allow the help, or their representative, to talk with the management direct. The way Bill advocates, the overseer is placed in a funny position. The help may think

# *Management and Workers*

that he is not presenting their case to the management strongly enough and the management may think that he is sort of siding in with the help too much. You all know that the go-between usually ends up by being in wrong with both parties. Therefore, if anything comes up that the overseer is not able to handle on his own account I believe the best thing to do is to arrange a meeting so that the management and the help can talk things over and come to an understanding. In this way the help know that their side of the case is told to the management and it makes them feel better to be able to settle such things direct. The overseer is an officer of management and I do not think that it is part of his function to represent the help's side in any differences. I don't mean that these differences may be serious, but there are often a number of little things that need straightening out and the way I have outlined is, I believe, the best way to keep things going in harmony and with cooperation."

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**If a case should arise where the management and the workers have different opinions do *you* think that the overseer should act as a go-between, or stand aside and let management and workers talk it over directly?**

*Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.*

used for recommendations for advancement has been fourfold: (1) energy, physical and mental, (2) ability to grasp a problem as a whole to proceed independently to its solution, (3) knowledge, not only of the specific job but of its relation to the work of the plant as a whole, and (4) personality as evidenced in an ability to handle men. Inasmuch as my recommendations have met with considerable commendation from various sources, I am passing along this standard for the consideration of your readers.

In selecting a machine to do a particular job, we choose the most modern and efficient machine for that particular purpose. Why should not the same standard be used within reason in selecting a man for a job? We should advance a man on the basis of his energy, ability, knowledge and personality rather than on seniority alone. If two men in an organization are equally qualified in these four requisites, the senior member should, of course, be promoted rather than the junior. Other qualifications being equal, seniority should constitute a preference.

H. H. WILLIS,
Director of Textile Department,
Clemson Agricultural College.

## *Buying Through the Company*

*Editor, Overseers' Round-Table:*

ALTHOUGH BUYING through the company is attractive I do not think it is a correct manner of doing business and it may rebound sooner or later on those taking advantage of it.

Human nature seems to have made us all alike in one failing, for I have yet to meet the man or woman who does not love a "bargain." Everyone rejoices to tell you what a bargain they got, and even those who profess to shape their lives according to their ethical, political or religious views will triumphantly finish with:—"I can't see how they can do it for the money," or "I am sure he must have lost money on that deal."

With this weakness, which is common to all of us, there is a natural tendency to seek every opportunity of "getting a bargain," instead of trading through the proper channels of commerce. If everyone were to buy everything through their employer, business would soon be in a state of chaos.

As far as possible, I think business transactions should be done through the usual recognized and customary channels. If a company does supply goods at cost prices, I think it should be fully appreciated, as the employee has the benefit of his firm's clerical and purchasing agent at no cost to himself. I am afraid, however, that appreciation is often not given, and some may be mistrustful enough to think that profit has been made out of the transaction.

ALFRED C. LAYZELL.

*Editor, Overseers' Round-Table:*

As A general rule, buying through the company is a poor idea. The company is merely taking the place of the retailer. It is a rather egotistical assumption to believe that a group of industrialists know more about retailing than an equally large retailing establishment.

If the retailers know better how to carry on the business of retailing economically (and I believe this a fair presumption) then they sell more cheaply than the mill can, or else the mill is losing money by assuming the role of retailer.

It appears to me that it is unsound economics for a producer to try, in any way, to dabble in retailing.

RALPH H. SHAW,
Overseer.

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## Summary of Discussion on Advancement

**In reply to the question of whether it was better to give ability or length of service with the company the most consideration in choosing a man for advancement, about 95% of the replies stated that ability alone should be the guide. While admitting that the problem was difficult, the letters expressed the belief that, in this day and age, the seniority rule would tend to act as a drag on an organization. It was agreed, however, that if two men were of equal ability the man with the longer record of service should receive the advance.**

# NEWS about MEN

**A. G. Myers,** president, Textiles, Inc., Gastonia, N. C., presided over a dinner given by the board of directors of that company on July 17 for superintendents of the various plants constituting the combed yarn merger previously reported.

**T. C. Barber,** for many years secretary and treasurer of Renfro Hosiery Mills, Mount Airy, N. C., has been named president and treasurer, succeeding **W. G. Sydnor** who becomes chairman of the board of directors. **O. K. Merritt** has been selected vice-president, **W. E. Merritt, Jr.,** secretary and assistant treasurer, and **G. B. Sydnor,** assistant secretary and assistant treasurer.

**George H. Hodgson,** who retired some time ago as vice-president and general manager of Cleveland (Ohio) Worsted Mills Co., is now back as head and devoting his full time to the company's affairs.

**J. Arthur Atwood,** treasurer of the Wauregan (Conn.) Co., has been reelected president of the Brooklyn Savings Bank, Danielson, Conn.

**Harvey W. Moore,** Charlotte, N. C., former mayor of that city, and treasurer of the Brown Mfg. Co., Concord, N. C., was recently elected a vice-president of the Merchants and Farmers Bank of Charlotte. He succeeds **J. L. Snyder,** who was elected president of the bank to replace **J. H. McAden,** prominent textile manufacturer. Mr. McAden resigned in order to devote all of his energies to his extensive business interests.

**Wiley H. Marble** of the Curtis & Marble Machine Co., Worcester, Mass., has been reelected president of the Third Division, A.E.F., a World War veteran organization which he has headed for nine years.

**Alfred Luther Brown,** vice-president, Cannon Mills Co., was voted Kannapolis' most popular citizen in a contest sponsored by the *Independent,* that town's local newspaper.

**Edmund W. Montgomery,** of E. W. Montgomery Co., Greenville, S. C., has been elected to membership in the New York Cotton Exchange.

**James L. Shields,** secretary and assistant treasurer of Charles J. Webb Sons Co., Philadelphia, and secretary and treasurer of the Merion Worsted Mills, West Conshohocken, Pa., was appointed chairman of the Registration Commissioners of Philadelphia by Governor Pinchot.

**H. S. Murray** is president of Singleton Silk Mfg. Co., Augusta, Ga., and Fred W. Batten is superintendent. This corrects a previous item concerning the personnel of this company.

**Sir Chas. Gordon,** Montreal, chairman of the board of directors of Dominion Textile Co., Ltd., Montreal Cottons, Ltd., and of Penmans, Ltd., has returned from a sojourn in the British Isles.

**Dr. A. O. Dawson,** of Montreal, president of Canadian Cottons, Ltd., Belding-Corticelli, Ltd., and of Dominion Woollens & Worsteds, Ltd., has returned from a five weeks' trip to England.

**Frank Kelleher,** president of Keystone Textiles, Inc., Reading, Pa., has announced his resignation. The company's New York office will be closed Aug. 1, and future business will be transacted at the mill direct. Mr. Kelleher organized the Keystone company four years ago, specializing in silk and rayon underwear. Previously he had been associated with the Vanity Fair Silk Mills for 11 years, during the last seven of which he was director of sales.

*Donald Comer, who spoke recently before the Institute of Public Affairs at the University of Virginia, Charlottesville, Va. His subject, "Child Labor in the South" was part of a round table discussion on the new industrialism in the South. He summarized the activities of welfare work particularly in Alabama. He said, "Alabama law closes mills to children under 14 and limits to 8 hours those between 14 and 16 and then only after Sixth Grade attainment. This law has just been amended requiring Eighth Grade attainment.*

**Norman Linnett,** manager of Courtaulds (Canada), Ltd., Cornwall, Ont., rayon manufacturers, with Mrs. Linnett and family, returned recently from a holiday in England.

**Arthur Emery,** Charlotte, N. C., who has been connected with the Griffin (Ga.) Mills, has been appointed general manager of the Brookside Mills, Knoxville, Tenn. He was formerly general superintendent of the Aragon-Baldwin Cotton Mills, Chester, S. C.

**A. R. Thompson, Jr.,** Charlotte, N. C., has resigned as southern manager of the Rohm & Haas Co., to accept a responsible executive position with the North Carolina Finishing Co., Salisbury, N. C. Mr. Thompson, who is a graduate of the Lowell Textile Institute, is a past president of the Phi Psi Textile Fraternity and is secretary of the Piedmont Section of A.A.T.C.C.

**Thomas A. Grieve,** Boston, Mass., has been appointed manager of the Wyandotte Worsted Co., Pittsfield, Mass., to succeed **Andrew B. Walls,** who returns to the American Woolen Co. Previously Mr. Grieve was agent of the American Woolen Co.'s Norwich, Conn., mills. Since 1925 he has been connected with the Boston office.

**H. A. Sanders,** formerly associated with Kaltenbach & Stephens, Inc., has recently been appointed general sales manager of Horace Linton & Bro., Inc., Philadelphia, ribbon manufacturers.

**Benjamin Price,** chief chemist, Canadian Celanese, Ltd., Drummondville, Que., sailed for England recently to attend a chemists' meeting in London.

**Dr. B. M. Theorin,** of the rayon chemical assistance-to-operations department, du Pont Rayon Co., Old Hickory, Tenn., will leave Aug. 1 for a two months' visit to his mother in Virserum, Sweden.

**D. J. Gardner,** superintendent of the Myers plant of Textiles, Inc., Gastonia, N. C., has been appointed superintendent of the Ridge plant of the same company. **Theodore P. Morris,** formerly superintendent of the Ridge plant, is studying yarn mercerizing and finishing at the Hampton Co., Easthampton, Mass., preparatory to assuming the duties of superintendent of the new mercerizing plant of Hampton Textiles, Inc., of Gastonia.

**W. A. Marley** has been named superintendent of Hanover Mills, Inc., Gastonia, N. C., filling the vacancy caused by the transfer of **D. J. Gardner** to superintendent of the Ridge plant of Textiles, Inc.

**C. E. Folk,** formerly superintendent of Belmont (N. C.) Fabric Co., recently accepted a position as assistant superintendent of the Spencer Corp., Spindale, N. C.

**Franklin Mellor,** superintendent of the Barrymore Cloth Co., Ltd., Toronto, for a number of years, has resigned and is now superintendent of Dominion Woolens & Worsteds, Ltd., Peterborough, Ont.

**C. J. King,** Williamston, S. C., was appointed a member of the committee on textiles at the recent conference on industrial education held at Clemson College, S. C.

**Robert Atherholt,** who has been connected with the Bedford-Johnson Co., Lynchburg, Va., for some time, will be superintendent of the Bedford, Va., mills of Hampton Looms, Inc.

**R. L. Gaddy,** formerly overseer weaving at Carl Stohn, Inc., is now superintendent of the Acme Weaving Mills, Anniston, Ala.

*A. R. Thompson, Jr., who has joined the organization of the North Carolina Finishing Co.*

**W. B. Shuford** is now assistant superintendent of the Highland Cordage Co., Hickory, N. C.

**J. E. Moore,** sales representative for the Calco Chemical Co., was seriously injured in an automobile accident near Charlotte last week.

**James Moran** of the office force of Powdrell & Alexander, Inc., Danielson, Conn., sailed from Boston on July 18, for a trip abroad, and will return late in August.

**Thomas Dashiell,** Greenville, S. C., a graduate of the Textile School, Clemson College, S. C., is now a member of the laboratory staff of the American Enka Corp at Asheville.

**J. M. Bolt,** formerly overseer of weaving at the Steele Mills, Rockingham, N. C., is now occupying a similar position at the Woodruff, S. C., plant of the Brandon Corp.

**Albert Bassett,** overseer of painting for the Wauregan (Conn.) Co., has been given charge of the shop and the paint mixing department, and **Arthur Kerouack** will be overseer of all the painting of the company houses.

*Jerome Lewine, reelected president of the National Raw Silk Exchange at annual meeting.*

# *Obituary*

### Charles A. Proulx

Charles A. Proulx, for many years active as a textile manufacturer in Woonsocket, R. I., died in Palmer Memorial Hospital, Boston, last Tuesday. He had recently undergone an operation. Mr. Proulx entered the furniture business soon after leaving school and conducted a store of his own for a number of years in Woonsocket. In 1905 he became associated with the late Gustave A. Friedrichs in founding the Woonsocket Dyeing & Bleaching Co., of which he was treasurer until his retirement about eight years ago. He also helped to establish the Fairmount Dye Works and served as treasurer of this concern. For a time also he was connected with the Boston Wool Co. In recent years he had given the most of his time to the Bernon Worsted Co., owned by himself and his son-in-law, Lawrence Jarret.

### Paul B. Adamson

Paul B. Adamson, president of Jos. Adamson & Co., Philadelphia, died on July 18 from a heart attack while playing golf. Mr. Adamson was 60 years of age. He is survived by his widow and two sons, Paul and Joseph. He was president of the Methodist Episcopal Orphanage in Philadelphia, and for 20 years had been superintendent of a Sunday School.

### B. Mabry Hart

B. Mabry Hart, president of the Fountain Cotton Mills and the Hart Cotton Mills, Tarboro, N. C., and Clinchfield Mfg. Co., Marion, N. C., was found dead in his hotel room in Raleigh, N. C., following a fire. Mr. Hart was 45 years old and a graduate of University of North Carolina. He leaves a widow, two sons and a daughter.

### Henry M. Tarr

Henry M. Tarr, manager of the Textile Traffic Association, died June 16 at his home in Providence, R. I., in his 63rd year. Mr. Tarr was born in Bowdoin, Me., and went to Providence 10 years ago. In addition to heading the Textile Traffic Association he was a member of the Traffic Club of the Providence Chamber of Commerce and a prominent Mason, being associated with Providence Council No. 1, Providence Royal Arch Chapter No. 1, St. Johns Commandery No. 1, Palestine Lodge, Solomon's Grand Lodge of Perfection, Rhode Island Consistory and Blue Lodge of Somerville, Mass.

### Francis C. Harder

Francis C. Harder, for the last 16 years connected with Tatum, Pinkham & Greey, New York, as manager of the Harder department, died July 18 at Plainfield, N. J., after a year's illness. Mr. Harder was a salesman of the old school, beginning his career in Philadelphia not long after the Civil War and coming to New York in 1875. At that time he became connected with the sales office of Samuel Slater & Sons, of Slatersville, Mass. He later joined Wheelwright, Eldredge & Co., and traveled the West for that firm for a number of years. In 1915 he associated himself with Tatum, Pinkham & Greey, specializing in pillow tubings. Mr. Harder was 79 years old.

### Harold O. Day

Harold O. Day, general sales manager for Brewer & Co., Inc., Worcester, Mass., died at his home in Shrewsbury, Mass., on July 12, after a brief illness. He was born in Hopkinton, Mass., 46 years ago and for the last 25 years had been employed by the Worcester company. He was a member of the Masonic fraternity.

### Patrick H. Doheny

Patrick H. Doheny, formerly engaged in the dyestuff business, and also identified with several textile activities in and around Philadelphia, died recently at the age of 72. Mr. Doheny, who had retired some years ago, had been ill for some time. He is survived by his widow, two sons and a daughter. Interment took place at Westerly, R. I.

### M. L. Hatley

M. L. Hatley, aged 55, for more than a quarter of a century an overseer in Wiscasset Mills No. 4, Albemarle, N. C., was fatally injured in an automobile crash near Albemarle on July 12. He died en route to the hospital.

### George Morse

George Morse, aged 76, for more than 40 years general superintendent of the Perry (N. Y.) Knitting Co., died suddenly at his home in that city on July 18.

### Robert Downs Wright

Robert Downs Wright, aged 69, native of Laurens County, S. C., and for about 50 years identified with the office force of the Newberry (S. C.) Cotton Mills, died at his home in Newberry, July 14.

## Textile Calendar

**Carolina Yarn Association, Second Annual Golf Tournament and Outing.** (Place to be announced later.) Sept. 18 and 19, 1931.

National Association of Cotton Manufacturers, Annual Meeting, Providence-Biltmore Hotel, Providence, R. I., Oct. 7 and 8, 1931.

Silk Industry Week, Paterson, N. J., Nov. 14 to 21, 1931, including Silk Machinery Exposition, Nov. 14 to 21; National Silk Convention, Nov. 18 and 19; Paterson Silk Institute, Nov. 14.

American Association of Textile Chemists and Colorists, Annual Meeting, Boston, Mass., Dec. 4 and 5, 1931.

Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 17 to 22, 1932.

# NEWS about MILLS

## Cotton

**West Boylston Mfg. Co. of Ala.,** Montgomery, Ala., have announced plans for a one-story addition to enlarge the cloth and weave room. They are also extending the warehouse by two units, three stories in height. It is understood that automatic looms will be installed in the weave room addition making possible a diversification of the mill's product.

***Clark Thread Co.,** Austell, Ga., recently placed contracts with Allis-Chalmers Mfg. Co., Milwaukee, Wis., for switchboards, distribution transformers and Tex-rope drives; and with the Diehl Mfg. Co., Elizabethport, N. J., for electric motors and control equipment, for the 40,000-spindle plant under construction at Austell. The electrical installation is being handled by Huntington & Guerry, Inc., Greenville.

**Hartwell (Ga.) Mills** are having their spinning system overhauled with the Guillet system, by the Dixie Spindle & Flyer Co., Charlotte, N. C.

**Cabot Mfg. Co.,** Brunswick, Me., will be closed from Aug. 1 to Aug. 10 to permit extensive repairs on the water wheels. Agent Wm. Worsnop has had all the mill tenements painted individual colors after being thoroughly repaired.

**Firestone Cotton Mills,** Fall River, Mass., will resume operations July 27 after a three weeks' shutdown.

**Standard Cotton Products Co.,** Flint, Mich., has been organized under state laws with capital of $240,000 by Oscar M. Banfield and Ellis H. Warren, now operating the Standard Auto Batt Co. on Camden Ave. The new organization will take over and operate the Standard Auto Batt Co.

**New Hampshire Spinning Mills,** Penacook, N. H., organized in 1836, but in the state of liquidation for the last year and a half, have been sold to the Concord Electric Co. for about $40,000. The electric company plans to lease the mills, which were purchased primarily to secure certain water rights on the Contoocook River. Transfer will be effected Oct. 1.

**Auburn (N. Y.) Converting Co.** ceased operations in February, 1931, and disposed of their plant as follows: sold part of the plant and waterpower to Shoe Form Co., Auburn, in April; sold good will and bulk of machinery together with office records, copyrights, etc., to Samson Cordage Works in May. The machinery was moved to Shirley, Mass., soon after the sale.

**Textiles, Inc.,** Gastonia, N. C., has resumed operations on a full day-time schedule at the Ridge and Myers plants, located in South Gastonia, after several months of idleness.

**Appleton Mfg. Co.,** Anderson, S. C., is replacing the roof of its main mill building with a modern saw-tooth roofing, which involves the expenditure of approximately $100,000, according to announcement. Day and night shifts of workers are pushing the job to completion.

**Dunean Mills,** Greenville, S. C., have awarded a contract to the Fiske-Carter Construction Co., of Greenville, for the erection of a one-story concrete, steel and wood addition to their plant, measuring 170x80 ft. This will make possible a rearrangement of rayon and silk yarn preparation equipment. J. E. Sirrine & Co., of Greenville, are the architects and engineers in charge.

**Lancaster (S. C.) Cotton Mills** have awarded a contract for painting 542 houses of the company's village to Fred Herndon, of Lexington, S. C.

**Bonham (Tex.) Cotton Mills** have placed orders for 192 automatic looms. Some of the new looms will displace obsolete equipment, others will be installed as additional equipment, bringing the total number of looms to 432, all of the latest type. The mills are operating on full time since recent reorganization by which the company is controlled by local capital.

**Indicates previous mention of project.*

## Wool

**Sebasticook River Woolen Mills,** Clinton, Me., which have been closed, may open in the near future. Dr. A. A. Shaw, head of a group of 24 townspeople who own the mill, admits that there are negotiations going on with a New York concern. The mill is about ten years old and was formerly known as Clinton Woolen Mills, Inc.

**Hoosac Mills Corp.,** Boston, Mass., has been organized with a capital of 5,000 shares of stock, no par value, to operate a woolen mill. John G. Ross, 50 Federal St., Boston, is treasurer and representative. Oscar M. Shaw is president.

**Charlton Woolen Co.,** Charlton City, Mass., has recalled former employees some of whom have been out for nearly a year, and has increased operations at both of its plants with day and night shifts.

**Hamilton Woolen Co.,** Southbridge, Mass., has installed 40 additional looms taken from a storehouse and they were put in operation this week. Some of the departments, including weaving, are operating night shifts.

***Amoskeag Mfg. Co.,** Manchester, N. H., will continue production on a capacity schedule in its worsted department throughout the summer and the scheduled shut-down for two weeks in August, for employees' vacation, has been abandoned. The cotton division and mechanical department will, however, observe the vacation period.

**Uxbridge Worsted Co., Inc.,** Woonsocket, R. I., has awarded a general contract to the Pelletier Construction Co., Woonsocket, for alterations and improvements in the boiler house at its local Glenark Mill.

***Hield Bros., Ltd.,** Kingston, Ont., worsted manufacturers of England, are installing the warping and winding equipment in their new branch plant rented from the City of Kingston. Stanley Grimshaw, the manager, expects that the plant will have at least 250 looms when production gets fully underway.

## Knit

**Real Silk Hosiery Mills, Inc.,** Indianapolis, Ind., have advanced operations at their local plant to about 80% of capacity on a day and night schedule. The plant has been running on a 70% basis for the past three months.

**Charlotte (N. C.) Chamber of Commerce** is making a vigorous attempt to attract textile manufacturers of the Philadelphia district to select locations in or near Charlotte where they claim the production costs are substantially lower. Several representatives of important Charlotte interests have already gone into the Philadelphia section to confer with knitting mill operators concerning the advantages offered by their community.

***Lake City Hosiery Mills,** Marion, N. C., has completed the installation of additional machinery.

**Marion (N. C.) Knitting Mills, Inc.,** has purchased additional equipment, including 51 knitting machines and 14 ribbers, which will be installed in a recently completed extension of the plant. The new equipment will be placed in operation in about two weeks and will increase the daily capacity of the mill from 1,000 doz. pairs of half hose to 1,500 doz. pairs. W. W. Neal is president and treasurer of the concern.

**Miller-White Hosiery Mills,** Taylorsville, N. C., is reported having completed the installation of 10 additional knitting machines.

**Majestic Hosiery Co.,** Collins and Westmoreland Sts., Philadelphia, is removing its plant to Glassboro, N. J. High wages and city taxes are given as reasons for the removal.

**Signature Hosiery Co.** mill at Philadelphia will be offered for sale owing to the liquidation of the company. The machinery consists of about 140 full-fashioned machines, most of which are 42-gauge.

**Shillington, Pa.** Inquiry as to the possibility of securing a building here with from 20,000 to 30,000 square feet of floor space, suitable for a full-fashioned hosiery mill has been made of the Shillington Chamber of Commerce by a New York firm. The chamber will endeavor to secure a suitable building.

Rock **Hill (S. C.) Chamber of Commerce** reports that the **Rock Hill Hosiery Co.** announces its intention of doubling the capacity of its plant, provided the citizens of that town will build another unit equal to the present mill; that would enable them to double the force of workers and increase the payroll by $3,000 weekly. An alternative is that the people build a half unit so that the company can increase its workers by 100 and also increase the payroll $1,500 a week. Plans are being made to raise the building funds by popular subscription.

*Massachusetts **Knitting Mills,** Columbia, Tenn., has plans underway for the erection of a dyeing plant at Columbia, so that finished products can be made there. The first shipment of hose under the present owners was made last week. There are day and night shifts, now, with 100 operatives, and it is expected they will reach a maximum capacity of 400 employees by the end of summer.

**Mercury Mills, Ltd.**, Hamilton, Ont., has closed part of its subsidiary, the Oxford Mills, at Woodstock, Ont., and have moved some of the machinery to Hamilton. The object is to center manufacturing operations on underwear at one point and thus increase efficiency.

# *Silk*

**Lackawanna Silk Throwing Co.**, Paterson, N. J., recently organized with capital of $100,000, to operate a local mill, will be represented by Abram I. Bluestein, 126 Market St., Paterson, attorney. Joseph Jesuele, Paterson, is one of the principal incorporators.

**Progressive Silk Mills, Inc.**, has been chartered under Delaware laws with capital of $150,000. Johel M. Wachman is president and the New York office is at 147 West 35th St.

**Roxan Silk Corp.** has been organized to make silks, yarns and threads in New York, with capital of $100,000.

**Altoona (Pa.) Textile Co.** Creditors of this company have rejected an offer of $50,000, for the mill at Scranton, Pa., and such property of the company will be held pending a more satisfactory proposal.

***Associated Textiles of Can., Ltd.**, Louisville, Que., has awarded the contract to Chas. Deakin, Montreal, for the erection of a two story addition. The foundations have already been constructed by Tellier & Thibeault, Three Rivers, Que. Mortimer Silverman, New York, drew the plans.

***B. Edmund David Silk Mills of Can., Ltd.**, Hawkesbury, Ont., a branch of the same company in New York, has just commenced production. When in full operation the company will weave and throw silk.

# *Rayon*

**Belamose Corp.**, Rocky Hill, Conn., has resumed operations after a suspension of about two weeks for repairs, it is learned. This marks the second closing at the factory in a year. On Dec. 24, 1930, the plant was shut down in order to catch up on its inventory. It reopened on Jan. 14, 1931.

**Delaware Rayon Co.**, New Castle, Del., has been advancing capacity in the spinning department at its local mill, and the plant is running on a normal basis with full working quota in all divisions. It is proposed to maintain the present schedule for an indefinite period.

**Canadian Celanese, Ltd.**, Drummondville, Que., is advancing capacity in its new dye house, recently completed, and the unit will be operated on a maximum basis, with full working quota, for an indefinite time.

# *Finishing*

**Burlington (N. C.) Mills, Inc.**, has just announced plans for immediate construction of a dyeing and finishing plant to be known as the Burlington Dyeing & Finishing Co. Contracts have already been placed for equipment for the new plant, which is expected to be ready for operation by early fall.

# *Miscellaneous*

**Norman Murray**, for a number of years connected with John M. Lalor & Co., Ltd., Toronto, Canada, has severed his connections with that firm, and has established his own waste business at 32 Front St. West, Toronto.

**Stanley Rug & Drapery Factory**, Stanley, N. Y., have plans under way for the rebuilding of portion of mill recently destroyed by fire with loss of about $40,000. The new unit will be two-story and basement, and will cost close to $50,000.

**Lancaster Mills**, Clinton, Mass. Officials of a company in Hoboken, N. J., said to be a textile concern, are reported to be negotiating for the purchase of the Amory mill of the Lancaster Mills group.

**Indicates previous mention of project.*

# *Textile Patents*

APPARATUS for spinning artificial threads from solutions of cellulose ethers or esters. 1,809,303. Ugo Mancini, Italy.

AXMINSTER looms, Tube frame for. 1,807,705. Oscar V. Payne, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

BOBBIN bushing. 1,811,609. E. C. Buffington, Manchester, N. H. Assigned to U. S. Bobbin & Shuttle Co., Providence, R. I.

BOBBIN CLUTCH for spindles. 1,809,049. David Lemoine and George Fournier, Whitinsville, Mass.

CIRCULAR knitting machine. 1,808,242. Edwin T. May, Chilwell, and Arthur Sherriff, Long Eaton, England.

CIRCULAR knitting machine. 1,809,762. Harry Swinglehurst, Orange, N. J. Assigned to Scott & Williams Co., Inc., New York.

CIRCULAR knitting machine. 1,811,289. Fred Attenborough, Long Eaton, England.

CLOTH conditioning machine. 1,808,701. Harry H. Wigglesworth, Mt. Airy, Pa.

CLOTH handling machine. 1,809,213. Rudolph A. Oesman, Brooklyn, N. Y.

COOLING and conditioning machine. 1,807,580. Thomas Allsop, Philadelphia, Pa. Assigned to the Philadelphia Drying Machinery Co., Philadelphia.

COMBINED shuttle feeler and thread cutter. 1,811,425. A. J. Cheverette, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

COTTON baling machinery. 1,809,220. Alexander S. Mackenzie, Houston, Texas. Assigned to Clayton Gin Compress Co., Houston, Texas.

DOBBY for looms. 1,811,431. A. D. Gargolinski, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

DRAWING device for spinning frames and for preparing machinery. 1,809,251. Jules Pflimlin, Mulhouse, France.

DROP shuttle box and connector therefor. 1,811,435. C. J. Lindegren, Providence, R. I. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

FABRIC cleaning mechanism. 1,809,122. Hugo Hemmerick, Yyomissing, Pa. Assigned to Berkshire Knitting Mills, Wyomissing, Pa.

FABRIC drying and finishing machine. 1,808,879. Emile B. Bates, Leicester, England.

FABRIC pulling machine. 1,811,460. H. M. Eaton, Nahant, Miss.

FABRICS, Manufacture of. 1,811,325. James Morton, Cramond Bridge, Scotland.

FEELER motion for automatic silk looms. 1,811,590. G. W. Nicely, Montreal, Canada. Assigned to British American Silk Mills, Ltd., Montreal, Canada.

GIVEWAY and thread guiding device for weft carrier magazines. 1,807,763. Richard G. Turner, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

HOSIERY turning and inspecting form. 1,811,049. Hugo Hemmerick, Wyomissing, Assigned to Berkshire Knitting Mills, Wyomissing, Pa.

KNITTING machine. 1,809,057. Max C. Miller, Cumberland, R. I.

KNITTING machine. 1,808,232. Thomas Henry Jones, Woodthorpe, England.

KNITTING machine. 1,811,700. Edwin Wildt and Henry H. Holmes, Leicester, England. Assigned to Wildt & Co., Ltd., Leicester, England.

LOOM, Cross wire carpet. 1,811,009. Samuel A. Hartman, Worcester, Mass. Assigned to M. J. Whittall Associates, Worcester, Mass.

LOOMS, Weft end control for magazines. 1,807,768. William M. Wattie, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOM, Weft-replenishing double shuttle. 1,807,764. Richard G. Turner, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOM, Weft-replenishing double shuttle. 1,807,722. Lester W. Balser and Everett E. Clark, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOMS, Cloth splitting attachment for. 1,809,619. Carl D. Brown Hopedale, Mass.

LOOMS, Protector mechanism for. 1,807,735. Anthony D. Gargolinski, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOM. 1,809,588. Benson C. Goodman, Far Rockaway, N. Y.

LOOMS, Protector mechanism for narrow ware. 1,807,739. Elbridge R. Holmes, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

MACHINE and method for repairing knitted fabrics. 1,811,330. Joseph S. Pecker, Philadelphia, Pa.

MACHINE for repairing knitted fabrics. 1,811,331. Joseph S. Pecker, Philadelphia, Pa.

MULES, Tension faller bar for spinning. 1,811,352. Walter A. Feugill, Methuen, and John R. Hosking, North Andover, Mass.

NEEDLE for repairing knitted articles. 1,811,524. Marcel Vitoux, Troyes, France.

SKEIN lacing machine. 1,811,120. Stephen A. Gasda and Daniel R. Cahill, Bethlehem, Pa.

SHUTTLE threader. 1,811,424. Louis A. Cadoret, Pawtucket, R. I.

STATIONARY for wire wilton loom. 1,811,427. Edward J. Dacey, Philadelphia, Pa. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

STOPPING mechanism for narrow ware looms. 1,811,432. E. R. Holmes, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

TEXTILE machine. 1,811,675. S. Magnano, Lawrence, Mass.

WEFT detector controlling device. 1,811,426. A. J. Cheverette, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

# New Machinery *and* Processes

*Three-tube skein-dyeing machine of novel construction*

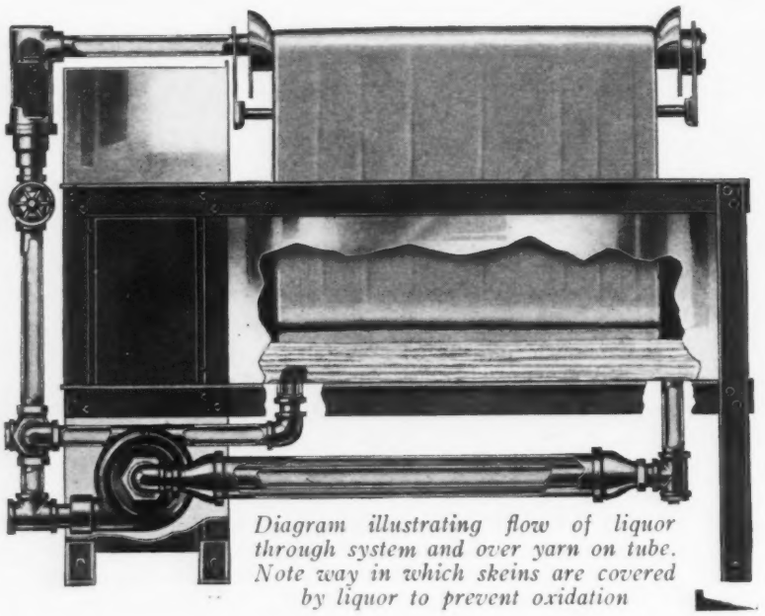
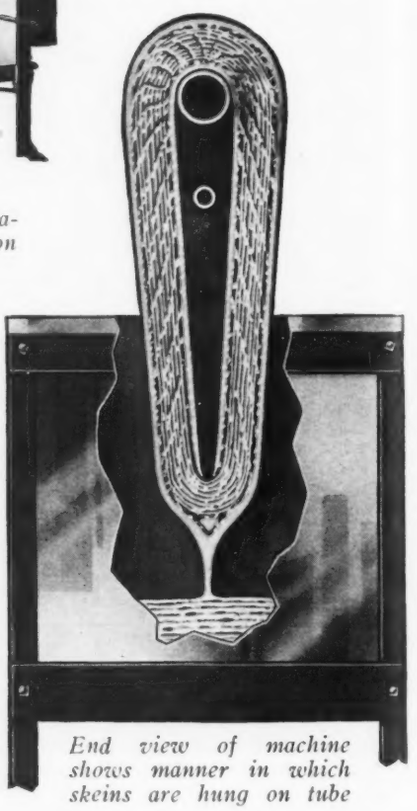


*Diagram illustrating flow of liquor through system and over yarn on tube. Note way in which skeins are covered by liquor to prevent oxidation*



*End view of machine shows manner in which skeins are hung on tube*

## Skein Dyeing Machine

DEVELOPMENT of a new skein-dyeing machine which is recommended particularly for the application of vat colors to silk, cotton, and rayon, is announced by Smith, Drum & Co., Philadelphia. It is stated that with this machine the material at all times during the dyeing and washing processes is safe from physical injury, as well as from premature oxidation. In addition, it is said that the finest of silk, cotton, and rayon yarns are left in excellent winding condition, even after unusually prolonged dyeing periods, and that there is a decided economy effected in dyestuffs and chemicals.

The new machine operates on the principle of the movement of both yarn and liquor. The movement of yarn, however, is very slight—only enough to shift the position occasionally to insure uniform action. On the other hand, the movement of liquor is very great—the entire bath passing through the yarn under low pressure once each minute.

Fundamentally, the machine consists of a specially designed perforated tube on which the yarn is hung. Directly below the yarn is a monel metal tank or container for the dyebath. Between the tank and yarn tube is a pump which draws the liquor from the tank and forces it into the special perforated tube and through the yarn back to the tank. To insure uniform action on all parts of the skeins, means have been provided to shift automatically the position of the material on the tube.

Outstanding features of the machine are the combination of moving both yarn and liquor to insure even dyeing and good penetration; the possibility of maintaining a totally submerged condition of yarn without the disadvantage of a long bath, proportions as low as 12 to 1 or as high as 30 to 1 being permitted; and the elimination of tangling of fine yarns, due to the fact that there is a dwell of 2 min. between each movement of the yarn, that this movement is very slight, and that the downward flow of liquor over and through the yarn tends to keep each thread in its original position. Another advantage cited is that additions to and heating of the bath can be easily accomplished, because the yarn is never in direct contact with the main body of liquor. This feature also prevents blowing or matting of the yarn due to agitation when heating or mixing. Automatic means for thorough mixing of the bath have been provided as a further safeguard and convenience.

To avoid trouble from undissolved dyestuff and chemicals and dirty steam, the entire bath is filtered once each minute before it comes in contact with the yarn. Washing after processing can be accomplished by means of a continuous flow of fresh water directly through the yarn, which insures quick and thorough cleansing of material. Ease of sampling, low labor costs, and low installation and maintenance costs are other advantages pointed out by the manufacturers.

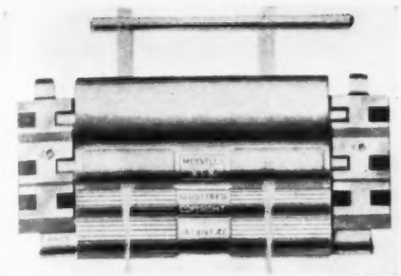
A wide variety of yarns, such as tram, grenadine, rayon, acetate, cotton, woolen, and worsted, processed on this machine are said to possess excellent winding qualities and good penetration. Level dyeings have been obtained on such special yarns as rayon boucle, ratine, and artificial horsehair.

(*Continued on page 76*)

## Laminated Long-Drafting Roller

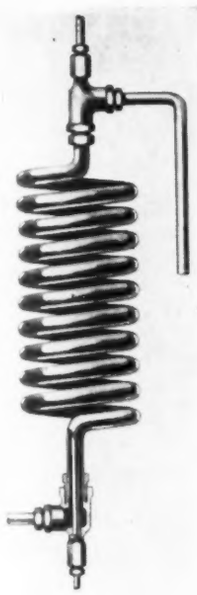
SPECIALLY constructed rollers for long drafting on both spinning and roving frames, developed by Henry Meynell & Co., Ltd., Accrington, England, are being introduced to this country by E. H. Rooney, 1567 Main St., Fall River, Mass. The essential feature of these rollers is the incorporation of laminated sections, consisting of metallic or fibrous annular plates which are mounted closely together and which are free to rotate. There are 60 or more of these plates per boss.

In long drafting, as in ordinary drafting, proper parallelization of the fibers



*The Meynell roller fitted on a ring frame. The front top roller has been removed to show the sliver passing between the laminations.*

can take place only if they are free to move relatively to one another. At the same time, however, there must be a suitable measure of control which will prevent short fibers from slipping along *en masse* with the longer fibers. The new V.T.R. (volt tread roller) is claimed to satisfy these requirements. It is stated that as the fibers come into contact with the rollers, they open the washers, and small groups of fibers are segregated between the individual washers until they are drawn through by the front rollers. This results in a combing action. The fibers are pressed gently on the walls of the thin plates by the action of the ordinary traverse mechanism, which moves the sliver along the roller in the usual manner. This causes the laminations to open and close automatically and allows only small units of fibers to pass between the walls of the washers. The gentle pressure against the washers, together with the close setting between the front and middle rolls, is said to keep short fibers under control.



*Coil for cooling test-water samples*

The V. T. R. roller is self-weighted and may be applied to drawing, slubbing, roving, and spinning frames and also to the cotton mule. It is designed to replace top middle roll.

The chief advantages cited for this roller are the ease and low cost of installation, and the fact that it is practically indestructible and requires no leather covering.

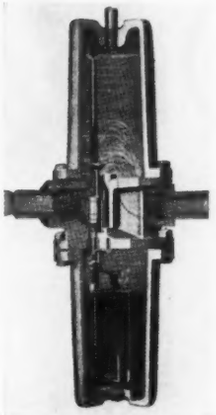
## Test-Water Cooling Coil

FOR securing representative test-water samples, Bailey Meter Co., Cleveland, Ohio, has developed the Dieform test-water cooling coil. This device presents a neat, compact, and efficient method of sampling steam and water at various points in the power circle.

The purpose of such a test is to determine the quality of the water supply; to control the method of treatment for the prevention of corrosion and scale formation; to control boiler concentration; to minimize wet steam, foaming, and priming; and to detect and measure condenser leakage. In order to secure such a test sample satisfactorily, it is necessary to cool the hot sample, while still under pressure, to room temperature so that so-called flashing will be prevented.

The device consists primarily of a coil made up of a tube within a tube. The test sample passes downward through the inner tube while the cooling water enters at the bottom and is forced upward through the annular space between the tubes; thereby completely surrounding the test sample. The advantages claimed for this upward movement of the cooling water are that the counter-flow principle tends to equalize the rate of heat transfer throughout the coil and that a supply of cooling water always surrounds the coil regardless of how slowly water flows through the outer section. The rate of flow of the test water may be controlled by means of a valve; and it is recommended that a sample of 1 gal. be drawn at the rate of about 1 qt. per min.

*Compound steam trap of simple design*

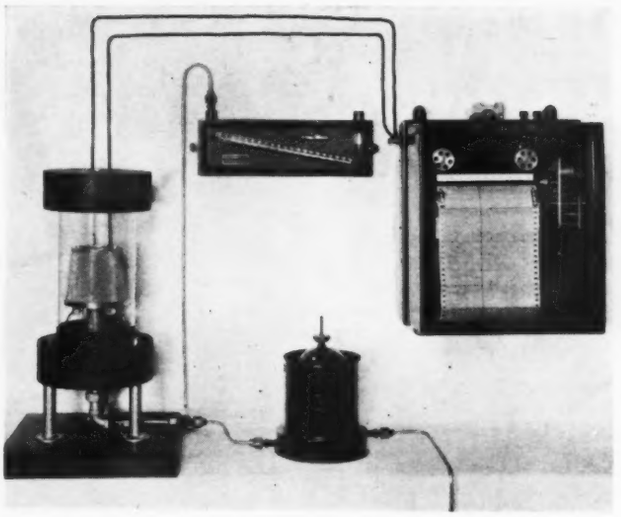


## Compound Steam Trap

A COMPOUND steam trap of new design has been brought out recently by the Armstrong Machine Works, Three Rivers, Mich. It is stated that, due to the simplicity of design, the trap gives practically attentionless operation, and that large water passages and straight-line flow insure a high capacity for a given diameter of discharge orifice.

There are only two moving parts in the pilot trap—the inverted bucket and valve lever; in the pilot housing the only moving parts are the piston and main valve, which are integral and therefore operate in unison. The body of the compound trap consists of standard Armstrong trap bodies bolted to a piston housing. For pressures up to 250 lb., the piston housing and bodies are made of close-grained semi-steel. For high-temperature, high-pressure duty, the bodies are one-piece forgings, while the piston housing is machined from a solid steel billet. With this construction, the entire trap mechanism is accessible. After removing the receiving chamber body, the piston valve seat can be unscrewed. It is then a simple matter to pull out the main valve and piston, as well as the piston liner.

The main valve is closed by gravity, no springs being used. Excessive opening of the main valve is prevented by a unique combination of pressure relief port and partial closing of the main discharge port, affording a water brake which prevents excess opening of the main valve. Oversized inlet and outlet connections are provided, so that the discharge orifice is the limiting factor of capacity instead of pipe friction.



*Flame analyzer with recorder, governor and gage*

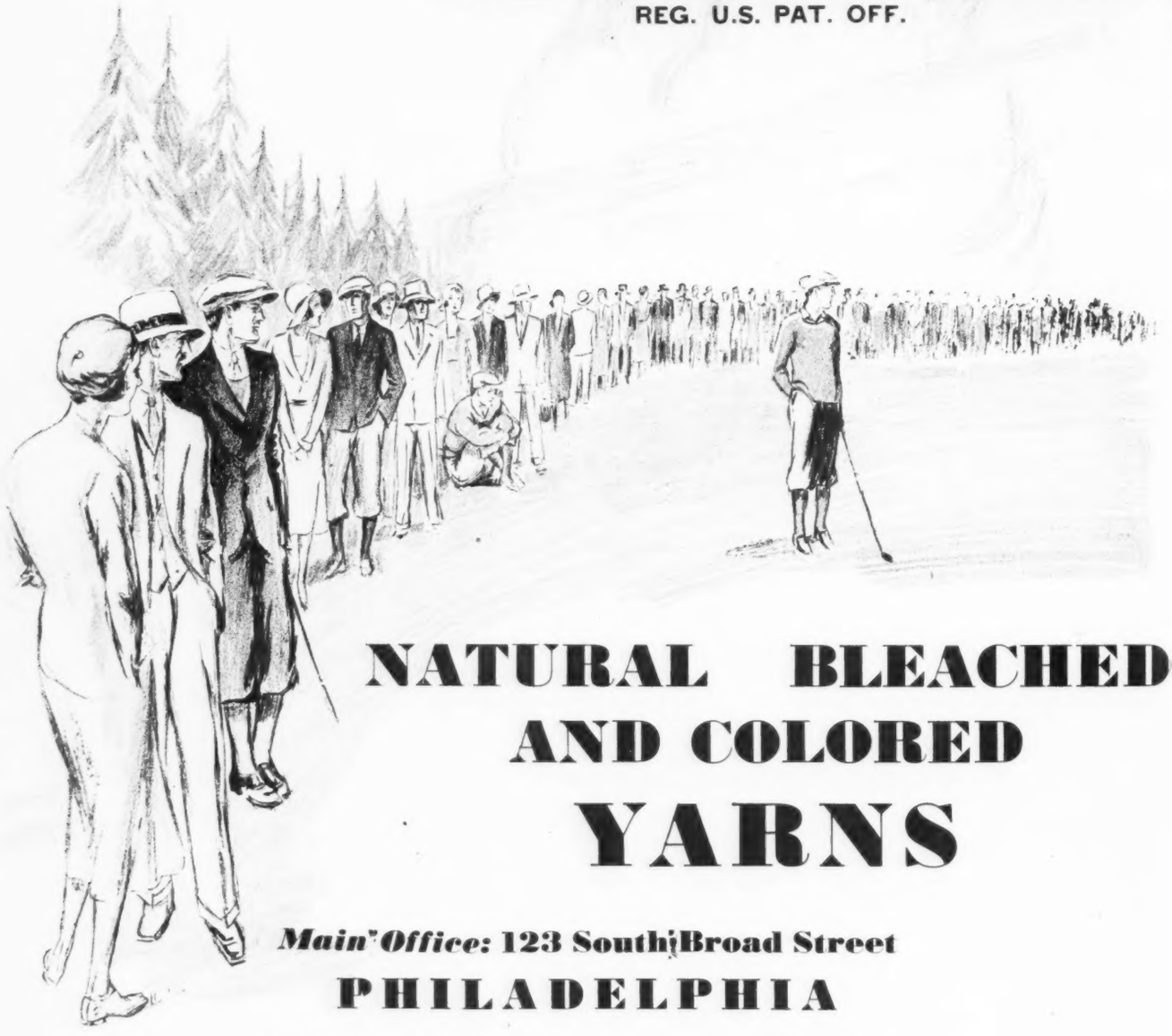
## Instrument Measures and Controls Heating Effect of Gases

FOR checking the heating effect of fuel gas, an instrument has recently been developed by the Brown Instrument Co., Philadelphia. This instrument is called the Brown flame analyzer and can be supplied to measure, record, and automatically control the heating effect of any gas.

Because of the fact that the analyzer automatically controls the gas mixture and insures a uniform product, it is believed that it will be of especial advantage in those manufacturing processes wherein the product is subjected to heating which must be of a constant nature. The accompanying illustration shows the essential parts of the flame analyzer, together with the recording instrument and a pressure governor and gage for controlling the flow of gas through the analyzer.

# Durene

REG. U.S. PAT. OFF.



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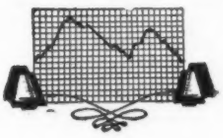
◆ *Survey of Fabric, Knit Goods, Yarn and Raw Material Markets* ◆

# *TEXTILE WORLD ANALYST*



## *Overdone Optimism a Drag on Business Readjustment*

*By Dr. L. H. Haney*

THE general business situation seems to indicate that the "secondary" decline which began in the second quarter will not end until new low levels for the depression are reached in many lines. Commodity prices had a sharp, but short, bulge in June which was followed by a relapse in July, when many individual commodities fell to new lows for the depression and in some cases to the lowest levels on record. Stock prices again receded after a spectacular technical rally in June, and are probably discounting poor second quarter earnings statements and delayed recovery in business as well as the European financial crisis.

Reports available for June indicate that production was further curtailed, and indications thus far in July are that recession in output continues. In general, then, we can expect a further sagging of more than seasonal proportions during the current month and possibly longer. But there are many reasons for the belief that we are in the last stage of decline. We continue to look for a quiet period of irregularity as the bottom is rounded. We expect the turning process to take considerable time during which most of the remaining maladjustments are eliminated.

It becomes more apparent each month as the depression continues, that there is no short and easy way out of our troubles. The latest example was the flurry of buying and the expressions of optimism caused by the postponement of debt payments. Sober second thought brought the realization of the fact that although this proposal was highly constructive, nevertheless it was largely negative in its effects on business. It was aimed to prevent a collapse of credit in Central Europe or, in other words, to keep business from growing worse. Increased buying has to await increased purchasing power, and that can hardly develop until after order is restored and long term credits extended. Once more we must face the fact that the depression is not purely psychological.

The debt moratorium development came at a time when commodity prices were showing some rallying tendencies, and gave an impetus to buying which caused standard commodity price indexes like those of Bradstreet and Dun to show a sharp reversal of the downtrend during June. The upswing in prices together with a curtailed volume of shipments caused our general business barometer, the P-V Line, to rise. The P-V Line is the ratio of commodity prices to the physical volume of trade and its rise toward normal in June indicated at least a temporary gain of demand on supply. Since the ratio is still below normal no upswing in business as a whole is yet indicated, but the approach of the P-V Line toward normal warrants the belief that the bottom is near. The relapse in prices in July will probably prevent the ratio from rising again as rapidly as was the case in June, but broadly viewed, there has been a slow rise in the P-V Line for about a year which may be expected to continue as curtailment of production brings the necessary corrections.

### Favorable and Unfavorable Factors

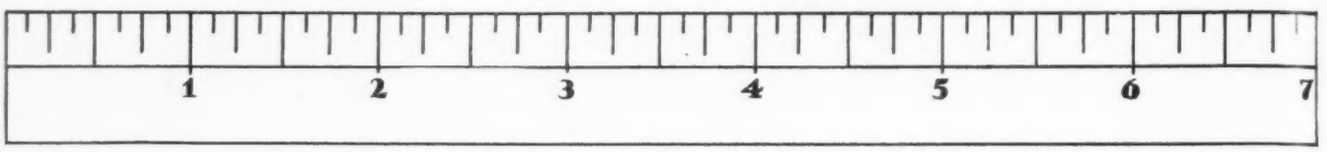
There are some favorable indications in the business news. The June rise in prices and the evidence that a few sensitive raw materials have probably touched bottom are constructive developments which are closely connected with the rise in the P-V Line. General Motors sales have held up fairly well; wool mill activity is near 1929 peak levels; cotton cloth sales and unfilled orders increased more than usual in June while stocks declined again and are the lowest for the season since September, 1927. Stocks of zinc were reduced in June. Bank credit, especially brokers' loans, is fairly well liquidated. The dying down of activity in the stock market suggests that the end of the bear market may not be far away.

The foregoing list, however, is outweighed in number by the unfavorable developments. The credit crises of Central Europe act as world depressants; our foreign trade has not improved; domestic demand, as measured by wholesale sales, declined in May, and department store sales suffered a sharp setback in June as employment and payrolls fell to new lows and the farmers' buying power continued to decrease; commodity prices softened in July with copper at a record low and wheat below the 1894 bottom. Several markets are not "free" and are unable to withstand liquidation of custody stocks. (This is

***Summary:*** **There are some indications that business is nearing bottom, but industrial activity continues to fall to new low levels. Some of the optimism created by the debt moratorium proposal was justifiable, but it was overdone when it caused abortive buying which was followed by a relapse. Readjustment was thereby delayed. Although wool mill earnings have increased and cotton mill earnings are a little steadier, the poor replacement margins suggest the necessity of better controlled production.**

The analysis and forecast by Dr. Lewis H. Haney, director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

*Measure the price of yarns by the number of yards you actually get*

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especially true of the three major textiles.) Sensitive indexes, such as machine tool orders, building permits, and building contracts, declined in June, the last two falling to new lows. June automobile production was less than in May, and shutdowns in late July are planned by some companies; indexes such as pig iron and steel ingot production and the unfilled orders of the Steel corporation declined more than usual in June, and reports indicate continued curtailment during July. Bank debits declined; foreign bonds were panicky in July.

The business trend is still downward, but there is reason for hope. We can hasten the recovery by completing the liquidation in real estate, in Government held commodities, and by removing artificially high wage barriers to lower cost production. False starts have been all too frequent, and inflation of any sort is to be avoided.

The textile industries have tended to increase their output contrary to the trend of general business. They were also among the first to recover in 1920-1921. But in all branches of the industry the current replacement margins are poor, even though the textile group may be near the peak of a two-year cycle. It should be remembered that there was some letdown in textile production in late 1921 and early 1922, as general business began to recover, and similar developments may take place again in 1931.

### Wool Mill Earnings Increase

The estimated net earnings of the average wool manufacturer made the sharpest gain of any May in recent years, for usually there is some seasonal decline in that month. The increase in earnings was caused by an unusual gain in machinery activity and a further rise in the margin actually earned. As a matter of fact, May machinery activity was the largest for the month since 1923. The earnings margin increased because wool goods prices were more stable and the wool which went into the goods sold in May was bought at declining prices several months earlier. For these reasons the earnings margin was higher in May than it had been in recent years. The prime cost of the average wool manufacturer was probably a little less in June, and, therefore, we estimate that the earnings margins probably gained a little over May.

*The current replacement margin* is based on the spread between the sales prices of woolen and worsted goods and the cost price of raw wool, but it does not allow for any lag as does the earnings margin. The replacement margin made a slight gain in June, chiefly because the price of raw wool was lower than in May. This was the first gain since January. The replacement margin, however, is not far above the low for recent years and while it reflects the improved demand for wool goods in recent months, it is also true that the latest increase in activity in the wool industry has not brought better replacement margins. Supply and demand conditions in the industry as a whole are apparently not very well balanced.

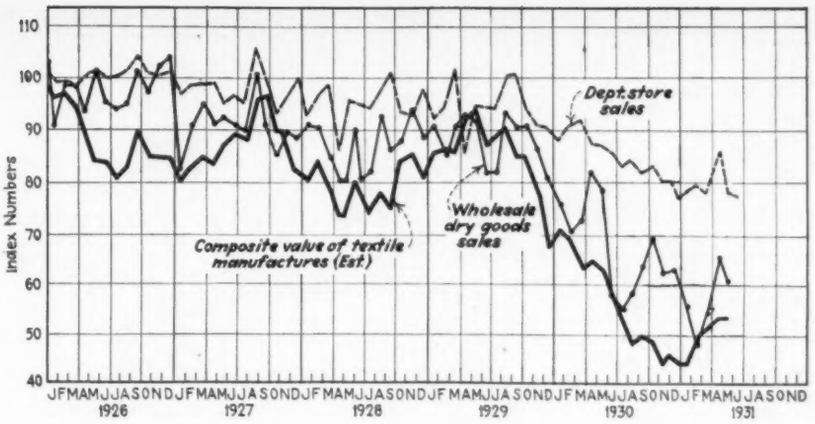
Index Numbers
110
100
90
80
70
60
50
40
Dept. store sales
Wholesale dry goods sales
Composite value of textile manufactures (Est.)
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1926
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*Fig. 1. GENERAL TEXTILE BAROMETER—Wholesale Dry Goods Sales—Adjusted for seasonal variation; 1922-1926 average = 100; (Federal Reserve Board) Dep't Store Sales—Adjusted for seasonal variation and long-time trend; (Federal Reserve Board index which allows for revised seasonal and number of days used from Oct., 1929, on) Composite Value of Textile Manufacturers (Estimated)—Weighted composite of cotton, wool, and silk machinery activity adjusted for seasonal variation and price levels (N. Y. University, Bureau of Business Research).*

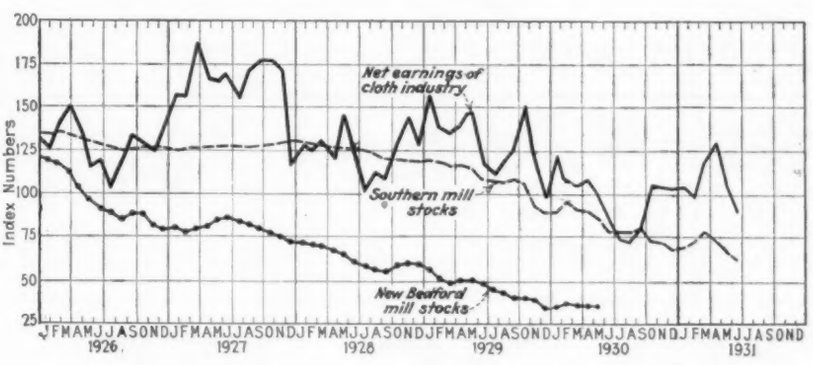
Index Numbers
200
175
150
125
100
75
50
25
Net earnings of cloth industry
Southern mill stocks
New Bedford mill stocks
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1926
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*Fig. 2. COTTON MILL EARNINGS AND SECURITY PRICES—Net Earnings in Cotton Cloth Industry—Computed from the cost of raw material, labor, fuel, etc., the price of finished goods and the volume of production (New York University, Bureau of Business Research). New Bedford Mill Stocks—Average price 25 New Bedford cotton mill stocks (New Bedford Standard). Southern Mill Stocks—Average price 25 Southern cotton mill stocks (R. S. Dickson & Co.). Stock prices 1929 on (Standard Statistical Index).*

The price index of wool mill stocks showed only feeble response to increased activity and earnings. The index rose slightly in June and early July, but it continues to move in a narrow range and is at approximately the same level that it was in late 1930. Probably there will be no sustained advance until the raw wool and wool cloth markets stabilize and replacement margins improve with greater activity in manufacturing. Until the stock market in general shows a rising trend a sustained advance in wool mill securities is not likely to occur.

### Cotton Mill Earnings Steadier

Improved demand for cotton goods in the latter half of June brought some strength to cotton cloth prices. Since the raw cotton going into the cloth sold in June was bought several months ago at low prices, we estimate that the earnings margin of the average cloth manufacturer was nearly as large as in May. The volume of activity was lower, and, therefore, the estimated net earnings declined slightly for the month. June earnings, however, were above a year ago.

*The current replacement margins* of spinners and weavers fell to new low levels in June, even though the mills have been curtailing output for the past two months. Demand for cotton goods improved in June, but the balance between supply and demand in the industry as a whole is not such as to bring better margins. Probably, curtailment had not gone far enough when a temporary stimulus came in the form of debt moratorium talk.

Prices of cotton mill stocks declined in June for the third consecutive month and averaged below the December low. Although the June average was the lowest in recent years the decline in prices was less than in May, and there was a sharp recovery in early July. Security markets in general are still unsettled and the earnings margin is at a level which usually has brought about a downward drift in stock prices. For these reasons any increase in prices is likely to be temporary until production is brought under better control and margins are more satisfactory.

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# YARNS AND RAW MATERIALS

**TEXTILE WORLD ANALYST**

## ◆Cotton Yarns Show Firm Position

LIMITED activity prevails in cotton yarns. The foreign situation seems to be the paramount issue in the minds of buyers. Uncertainty on this matter and on the new cotton crop tend to restrain buyers from active operations. While cotton has shown a renewed upward tendency, it is still nervous, and reacts quickly to any unfavorable news.

However, yarn prices are continuing to show a firm background. Spinners are making every effort to secure a fair price, and they seem to have made some progress upward from the low levels which prevailed a month ago. Business has been done at least 1 to 1½c. above the low figures. At present spinners are quoting prices higher than buyers are willing to offer, even in the limited purchases made today. Many dealers are not quoting prices at all, but wait for inquiries to develop which they submit to their mills in an effort to secure prices satisfactory to both sides.

Buying at present is confined to small purchases where needed to fill in, for quick deliveries. This is evidence of the limited supplies in the hands of buyers. While business is small, spinners are still curtailing their production drastically. They are usually shipping more than they are producing, on either old or new orders. In view of the fact stocks in dealers' hands are admittedly at low ebb, the situation is regarded as strong and steadily improving. As an indication of the status of dealers' supplies of stock yarns, an inquiry recently was received for a small lot of 20s-2 warps, standard description, 1000/600. The dealer did not have that many warps in stock, so was compelled to borrow them from another customer to fill the order promptly.

Prices quoted by spinners are usually well maintained. With buyers' ideas below these figures, dealers are not always able to put through the sale. On 10s cones, spinners ask 17 to 17½c.; one spinner refused an offer of 17c. for 20,000 lb., but occasional sales at 16½c. are reported. For 30s-2 warps 24 to 25c. is asked, with special yarns at 25½ to 26c., and sales at Philadelphia 24 to 24½c. On 20s-2 warps, few spinners, if any, will accept less than 20c. Carpet yarns recently were one of the active items in the market, and spinners are asking 17½c. for 8s-3 white stock. Local weaving inquiry is scattered and confined to small lots for small deliveries. Underwear manufacturers lead in the limited interest noted in carded knitting yarns.

Combed yarn mills are reported in rather better shape than carded spinners. New business has continued in scattered fashion. Single 30s are noted at 34½ to 35½c., with quotations up to 37½c. Mercerized yarns are very quiet. Inquiries are noted, restricted largely to manufacturers of specialities. Hosiery mills are not active and specifications continue to be very poor. Prices generally are unchanged on these yarns.

### Firmness in South

Southern spinners have displayed more firmness in their quotations on both combed and carded yarns during the last few days, and, although shipments have declined in volume since the middle of the month, indications point to an increase in the spread between raw cotton and yarn prices during the last half of the year. Mercerizers have shipped sizeable quantities of yarns to knitters on old contracts and stocks have been reduced to nominal proportions all along the line from spinners to the knitters and weavers of processed yarns.

In the carded yarn group a more courageous attitude was also in evidence. One important southern spinner recently refused to accept a large order for 10s single at any figure below 17c. declaring even such a figure would net the mill a loss of practically 2c. a pound. Yarn purchasers are finding it increasingly difficult to obtain spot shipments or ordinary descriptions and some dealers say that it is no longer safe to count on obtaining stock yarns for immediate shipment.

### Market Briefs

**Cotton:** ***Steadier as decline seemed overdone.***

**Cotton Yarns:** ***Quiet, but spinners are holding steady prices.***

**Cotton Goods:** ***Waiting market with optimism holding prices against bearish tactics.***

**Wool:** ***Quieter movement, but support seemed adequate.***

**Worsted Yarns:** ***Strong market; spinners, independent, may raise prices.***

**Woolen Goods:** ***Men's suitings continue active; prices firm.***

**Silk:** ***Strike situation hinders buying. Outlook uncertain.***

**Silk Yarns:** ***Wool goods mills buying spun silk; thrown yarns quiet.***

**Silk Goods:** ***Active demand; mills behind in canton shipments. Velvets strong.***

**Rayon:** ***Mid-summer business better than expected; July turnover may exceed June.***

**Knit Goods:** ***Hosiery buying light, but market confident. Active call for heavyweight underwear; swimsuit orders waning; fall sweaters improve.***

## ◆Cotton Still Watches Foreign Affairs

THE cotton market in common with other commodity as well as security markets continued to watch international developments during the week and immediate market fluctuations were affected to a large extent by the favorable or unfavorable character of the dispatches at hand. So far as the progress of the new cotton crop was concerned a continuation of the showery conditions over the greater part of the belt was generally regarded as favorable and influenced moderate selling pressure although this was restricted by hopes of ultimate settlement of the German financial problems. The decline in the previous week to the 9c. level for October contracts, or 170 points under the high price touched on the late June rally, had evidently strengthened the technical position and rallies of about 70 to 80 points followed on covering and trade buying. At the advance, however, this support was less in evidence and the market again lost more than half of the week's gains, with October selling off from 9.80 almost down to the 9¼c. level.

The impending end-July private crop reports as well as the Government report on condition and probable yield as of Aug. 1 which will be published on Aug. 8, were coming in for greater attention although the market was still dominated to a large extent by the foreign situation. Ideas on the crop outlook are generally favorable. It is considered too early to form any definite opinions as to the final extent of weevil damage, and weather during the coming month will determine largely the ultimate destruction of this pest during the current crop season.

As the 1930-31 season draws to a close, there is little or no disposition to change recent estimates on the amount of American cotton that the world will use. Ideas still range from about 11,100,000 to 11,200,000 bales with the expectation that the carry-over will be in the neighborhood of 9,000,000 bales. However, a relatively small portion of the surplus cotton remaining at the end of the season will be held by mills, which is regarded as indicating that any improvement in general business conditions as well as in the demand for cotton cloths would be reflected by improved buying of spot cotton. Domestic mills at the end of June had only 1,130,514 bales on hand, according to the Census Bureau, as compared with 1,356,664 bales at the same time last year. According to the New York Cotton Exchange Service, world mill stocks of American cotton at the end of this season will be about 2,000,000 bales against 1,959,000 at the end of last season and maximum end-season stocks of

# They gave him up for dead

## . . . . but 1931 finds him healthier than ever before

KING COTTON has been the miracle man of the business world. Given up for dead, he has come back stronger than ever before. Slowly but surely in the last few years, cottons have surged into new popularity.

And this year they attain new "highs" in fashion prominence. Never before have cottons been offered in such a variety of weaves and weights, with such finish and "feel", in such charming and colorful designs. Never before have cottons been sought more eagerly by well-dressed women!

The story of cotton's come-back has many interesting angles. But none is more interesting than the important part played by trademarking and identification.

Here are just a few of the important advantages secured by the manufacturer who trademarks his cottons:

1. *Absolute protection against substitution.*
2. *More effective advertising.*
3. *A name that builds up invaluable good will.*
4. *Steady, repeat-demand that is neither seasonal nor stationary.*

And then there is the obvious advantage of *naming* your fabric. The consumer will learn that name . . . use it when she comes back for more . . . when she buys made-up merchandise . . . when she "bridges" or "teas" with friends.

In the last few years Kaumagraph has helped many a manufacturer. In some cases we have actually created and designed the trademark. Often Kaumagraph has had the trademark registered. Always Kaumagraph has shown the manufacturer the ideal way to apply his trademark—with Kaumagraph Dry Transfers.

Kaumagraph Dry Transfers constitute the perfect method of applying trademarks to textiles with beauty, economy and absolute clarity. To facilitate the application of Kaumagraph Transfers we have designed special machinery that reduces marking costs to a negligible item. We will be glad to mail you additional information . . . or, if you prefer, we'll send a special representative to tell you more.

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# YARNS AND RAW MATERIALS

**TEXTILE WORLD ANALYST**

2,950,000 bales in 1927. This same service says that foreign stocks of American cotton at the end of the season will be around 2,650,000 to 2,750,000 bales compared with 1,865,000 at the end of last season.

QUIET WEEK IN MEMPHIS

MEMPHIS, TENN., July 20. — No cotton was sold out of local stocks during the week, sales being entirely of f.o.b., cotton. The total reported was 1,566 bales against 2,806 last year and 3,683 the year before, making 725,345 bales for the season against 1,014,380 last year and 976,527 the year before. Aside from a few small crop lots tightly held, the unsold stock of 12,747 bales—revised by actual count—consists of odds and ends; further sales of importance by first hands must therefore await the new crop movement, fully six weeks off. In the meantime, buyer stocks are heavy, although much below record stocks carried at this time last year. Merchants attempting to cover old commitments or to put their hands on cotton before accepting an order say buyer stocks are held at prohibitive basis.

Current receipts are extremely light but the outward movement is heavy—19,010 bales for the week against 14,297 last year and 10,417 the year before. Basis on 1⅛ and 1 3/16 in. staples has been reduced 25 points but not enough business is being done to test values; there is not the slightest evidence of selling pressure. Forward business is decidedly slow in developing but shippers are quite willing to wait for more light on the crop and business developments.

Crop prospects in this territory are good but some apprehension as to boll weevils in being expressed; the weather during the week was showery, mostly cloudy and temperatures moderate.

## ◆Cotton Wastes Continue Spotty

THE cotton waste market continues weak and spotty. There is a relatively good demand for good upland and peeler strips, but other wastes are slow. Strips appear to be the strongest stocks in the market and have been much more active during the last three or four weeks than comber.

Demand for the latter fell off again early in the week, with dealers offering 7½c. and general quotations standing at 7½-8c. There is a limited call for wastes from Egyptian cotton, stocks of which are small in comparison with stocks of domestic wastes. The thread section of the market is in a somewhat better position than it was a month ago, although demand is still lagging, and stocks are quite large.

## ◆Worsted Yarns in Firm Position

A FIRMER attitude on worsted yarn prices is maintained following continued strength in raw wool. No effort has yet been made to advance prices. It seems as though each spinner is waiting for someone else to start such a move. It is easy to imagine the possibilities which would follow any concerted buying movement. Of course sales have been made in sizeable quantities, especially to sweater mills, but weavers generally have not yet operated to any great extent. Optimism is far more prevalent than it has been for some time.

Dealers are having some difficulty in getting off deliveries when promised, even in small sample lots. Under such conditions, together with a firm raw wool market, it is only natural a more independent attitude should be taken on prices. Long time contracts are not regarded with much favor. As predicted in this column an advance of 2½c. has been made on single 18s slub dyed, made from that special domestic blend, for sweaters, with 95c. the present price. Sizeable orders have been placed for this yarn by sweater manufacturers within the last few weeks. Knitters prefer the regular blends, but the higher costs of $1.00 and more, cause them to turn to this special grade yarn. While sweater manufacturers have booked quite a nice volume of orders, the big buying has not yet put in its appearance. There are many trades now being negotiated, and it is expected there will be a good buying movement in the next few weeks. August and September, it is predicted, will prove to be active months in this branch.

PREPARING BATHING SUIT LINES

Bathing suit manufacturers are working on their samples. It is believed there will be an earlier start in this field this year, so that November and December will see some action. With the late start in February and March this year, deliveries have been a serious problem in more than one quarter. There is also some feeling that there will be a decline in the interest in bathing suits made from single yarns. There have been a large number of returns reported, with all kinds of claims filed, because of poor wearing qualities and development of holes. This is attributed to the use of yarns made from lower grade stocks. It is asserted that if any stock lower than 50s is used, trouble is bound to develop. While a cheaper yarn can be offered in this grade, it does not prove an economy because of a high percentage of seconds, press-offs and waste in cutting out the suits.

Several men's wear mills are running well, in cleaning up orders for the fall season. In some cases deliveries cannot be made before September or October. There is steady demand for the usual yarns for early delivery. In dress goods, certain mills are well engaged on fancy effects with ratine and boucle fabrics also in their line on which a good business is hoped for. However, the real volume of business has not yet developed, so manufacturers do not know yet what will be the fabric to sell most extensively.

## ◆Good Wool Demand at Steady Prices

A CONTINUED satisfactory demand at prices steady to stronger marks the wool market and the outlook is considered excellent. The fact that sales have not slumped so much as might be expected after the heavy buying of late June is an indication of the soundness of the situation, as is also the fact that the amount of speculative buying has been relatively small and wools are rapidly going into consumption. Deliveries are being hurried and a slackening in demand may become manifest in the next few weeks as mills are pretty well covered by recent purchases. The statistical status, however, is such that such a normal slackening should not affect prices.

There are a few indications that the situation is working toward a betterment in woolen mills, and a correspondingly better demand for woolen sorts. Demand for combing wools is still the feature of the market, but from the mill end it is noticeable that some of the weavers are not running so full as was the case a few weeks ago. Many worsted weavers are well sold ahead, but opinion is that the general high production rate could not have been kept up without running to stock. Cutters are playing their cards close to their chests and worsted mills are evidently following the same procedure. After such a good run on worsteds some attention may be switched to woolens.

Last week's Boston wool receipts of domestic wool, amounting to 29,797,000 lb. and an indication of the present state of activity in the wool district. The total for the corresponding week in 1930 was 14,144,000 lb.

Prices for territory wools show a stronger tendency which is reflected in the moving up of brackets on the low side. Quarter blood quotations have been placed at 43 to 46c, representing an advance of 1c per lb., clean basis. Fine staple is quoted at 61 to 63c, half blood staple at 57 to 58c, and three-eights blood at 48 to 50c, clean basis. Choice lots are scarcer, so that even

# YARNS AND RAW MATERIALS

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steady prices would mean a rising level of value.

Some houses have received excellent prices for fleece wools and this ability to secure the top of the market reflects the strong undertone. Sizeable lots of three-eighths blood have been sold at 23c, grease basis. Fine delaine is strong and unchanged at 25½ to 26½c.

Top prices are unchanged. Quotations on the medium grades have not reflected the present wool prices and there is expectation that top prices must rise, particularly three-eighths grades, to preserve the normal relation. The top future market has shown no trend during the last week.

Considering the difficult situation abroad, prices at the London auctions have done remarkably well. With the German financial difficulties and the Yorkshire strike controversy together with general slow rate of machinery activity as bear factors, a drop of only ½c for 36s to 50s, scoured, is heartening. While the foreign market has little effect on present domestic price levels there is a long-range significance and the relative steadiness is looked upon as a favorable factor.

## ◆Woolen Materials Marking Time

WITH the exception of noils, which have weakened, prices for woolen materials are floating along in a position which is very sensitive to demand. As soon as there is a call for a certain grade of waste or rags quotations are firm and show an upward tendency, but there is not enough activity at the moment to develop any real price movement.

As was to be expected as a result of the high rate of activity in combing mills, noils have gone against the general market and prices have dropped on an average of 2c. per lb. in the last two weeks. Outside of a burst of demand, which is certainly not on the immediate horizon, there is apparent no factor which will strengthen noil prices. It is probable that a gradual decrease in production, coupled with a gradual expanding demand, must be depended upon to work out the situation and this is a matter of months.

The general prospect for wastes and reworks is not as unfavorable as the slow market might indicate. Stocks are, in most cases, reasonable and the low price level of this source of material may be a factor with the buying public in the mood to shop around with depression psychology and purchase the cheaper grades. The incipient demand for woolen fabrics is, of course, being closely watched.

## ◆Raw Silk Quiet, Due to Strike Situation

DISTRIBUTED labor conditions in the silk industry have served to further discourage broadsilk manufacturers from buying raw silk. Up to last week-end, there had been a fair spot interest, and some importers were enjoying active movement on stocks immediately available, with prices steady. Stocks on hand in New York were light, and importers had no difficulty in getting list for their offerings. The turn of the week, however, brought a slackening of demand. Futures have been dull for nearly two weeks, and now even spot silk is waning. It is impossible to guage the outcome, as much hinges on the strike developments.

Importers are frankly hoping for a recession in Japan, that will bring quotations 10 to 15c. down. Broadsilk manufacturers have raised their fabric prices in only a few instances, and they are disinclined to meet the higher levels in the primary market, while there is still doubt as to whether the additional cost may be passed on. In any case, and aside from the strike question, there is little of the usual fall fabric rush among broadsilk mills; the industry is going slow. A shutdown of mills, even for a few weeks, would be unfortunate both for the weavers and the importers—particularly, as these markets have been daily expecting things to pick up. The general feeling has been that August would bring a decided increase in fabric movement, which in turn would encourage weavers to buy more actively for the necessary increased output. Hosiery mills show little interest in the primary market; here too production is less active than usual, and manufacturers are waiting for fall buying by retailers which should develop as soon as the mid-year inventories have been completed.

## ◆Good Spun Silk Call From Wool Mills

ORDERS from woolen and worsted mills are the chief outlet at present for spun yarn; spinners report good buying by these weavers, but very little call from the broadsilk trade. The silk goods industry is operating cautiously on fall lines, and prospects are there will be little real call for spun yarn from that industry before the middle of next month. Spinners have moderate stocks on hand themselves. The outlook is satisfactory, though late buying appears inevitable. Prices are unchanged.

The recent jump in silk prices has had a depressing effect on the movement of thrown yarns. Weavers place little or no business at present. Most of the larger hosiery mills are covered well ahead, and the smaller knitters are restricting orders to immediate needs. Throwsters look for a continued lull until silk prices either stabilize at present levels, or else recede moderately. Prices are unchanged to slightly lower.

## ◆July Rayon Sales May Exceed June

RAYON yarn sales for July to date are averaging up to June, and prospects are this month will exceed last month in total turnover. The warm weather decline is less pronounced than producers had expected, and most companies are getting steady business, with some firms so pressed that they ask time on shipments. Demand is largely spot, but there is a fair quantity of orders for August delivery, chiefly standard yarns. The call for 150/40, first quality, bright, is spirited and producers have difficulty in making delivery; stocks of the 150/40 and 150/20 second quality are declining fast and manufacturers are pushing their sources for shipment.

Production of rayon underwear is active, and these knitters buy yarn freely; current orders are small but numerous; yarn producers look for a considerable increase in demand from this market early in August. Weavers who specialized in rayon flat crepes have slackened their output, in sympathy with the general broadsilk tendency toward caution; they buy little yarn, but here too the rayon companies expect demand to show a jump next month.

There is little change in the long-term outlook for the synthetics. Stocks continue low, and developments tend to confirm the predictions of a possible yarn shortage in early fall. It is difficult to estimate the percentage of fall business placed so far. Consuming industries follow a policy of deferment on all advance needs.

Rayon producers are encouraged by the steady turnover, though it means little in net profit. The firmness both in price and in demand tends to change the fall picture as regards the possibilities of mergers or amalgamations of companies. Rayon companies which six months ago, were not so sure of themselves, now are understood to be in a better frame of mind, due to increased business. These firms hope the current active movement will increase sufficiently to add something to their meager profit, meanwhile they are discouraging talk of mergers in the hope of "scraping through" somehow.

# FABRIC MARKET REPORTS

**TEXTILE WORLD ANALYST**

## ◆Quiet Stability in Cottons Encourages

QUIET in cotton goods continued from last week into the week now closing. The tone of the current week has shown great improvement, however, over that of last. Disorganizing selling by second hands in the print cloth market seems to have passed its peak. Fortunately mill agents had not been stampeded by the early evidence of weakness, and a certain amount of inherent strength, which has never left the market since the June spurt, was again much more evident.

The week in financial circles as well as in cotton goods was one of waiting, and the development of affairs connected with the relief of the German situation were closely watched. It has been a period when international relations were the uppermost subjects and commitments in all sorts of business have been held up until some outcome might be definitely seen. The fact that optimism has held the upper hand, was evident in the stability which the market maintained during this period of waiting.

Print cloths which had been hammered down by second hand selling last week to a basis of 4⅝c. for 64x60s strengthened perceptibly and the mill quotation at mid-week was around 4⅞c. Most mills have their immediate future fairly well taken care of and the next spurt, which perhaps may be delayed until August, will doubtless be a fairly broad covering of fall requirements.

While the international matters above referred to strongly affected the primary market, they had little effect in retail circles and the broader distribution which is being developed through current low prices is a hopeful sign for the coming fall and winter. Retail stores continue to feature with considerable success sales of household cottons and cotton materials for women's wear. The cotton dress is experiencing another good summer and strong promotional effort is being made to make this a year-around vogue. Special fabrics of cotton for the cold weather season have been developed and sellers are optimistic as to their acceptance.

Although the raw material seems to have stabilized after its slump there are still a number of critical crop reports which may be pivotal factors in the development of the goods market. If the evidence tends to suggest a crop of 12,000,000 bales or more, the possibility of a heavy carryover is likely to hold prices down. On the other hand if insect damage or acreage abandonment leads to the expectation of a much smaller crop, improvement in prices is likely. Satisfactory settlement of current international problems which may mean larger buying of cotton by Europe is a bullish factor which has to be reckoned with. Certainly in recent years cotton has rarely stayed long below 10c. and unless all the old rules have fallen into the discard there is hopeful prospect of a steady or strengthening market. Mills are reported to be keeping their cloth production on a conservative basis and the recognition is general that only by so doing can benefit be taken from the present situation.

## ◆Wool Men Divided on Overproduction

WOOL goods manufacturers are far from unanimous regarding the danger of an end-season surplus. While it is agreed that the spirited buying, especially of men's suitings, has encouraged mills to too enthusiastic output, some observers who are usually conservative, believe that August sales will help materially to cut into these stocks. Production continues at high pressure, and it is beginning to improve the delivery situation. Some mills are nearly caught up with their orders, and numerous firms are accepting August business on higher-priced fabrics. Spokesmen for one part of the suitings industry estimated that 75% of current output was actually sold before it was produced; however, this group does not represent the biggest volume, and at the latter end, it is tacitly understood that production is well ahead of orders.

### Cutters Buy Lightly

Cutters are more cautious, now, and are reducing the size of their orders, with the aim of holding goods to minimum until the spring openings. Prospects are the openings will be very late; several houses plan to open toward the end of September. Weavers are confident of spring outlook, and they expect initial business to be much larger than last season. It is estimated in some quarters that cutters will place 33⅓% more business immediately after the showings that they did when fall lines were offered. This is based on the increased confidence shown in the garment trade. Each week brings further postponement of tropical openings, and indications now are that mills may show their lightweights and their spring lines simultaneously.

Prices are steady, with an upward trend. Current suitings demand stresses diamonds and basketweaves; blue leads basketweaves as usual, and oxfords and grays are second. Overcoatings all are moving actively, and some mills are sold to October, on preferred lines.

Women's wear fabrics move unevenly; some mills enjoy a healthy call, but the market as a whole is quieter than this time last year.

## ◆Broadsilks Grow Steadily Firmer

MOVEMENT of fall broadsilk is increasing steadily, and market outlook is good. Weavers are cautious about production and there is no immediate prospect of heavy stocks. Cutters-up show more confidence in their buying; the current week has seen active call for cantons, crepe-back satins, and transparent velvets, and in numerous of the popular-priced numbers, orders exceed stocks. Mills have difficulty in making spot shipment of certain $1.50 cantons. Transparent velvet is most popular in black, but there is also a good demand for the pastel shades for winter formal wear.

Perhaps the most significant aspect of the market, is the confidence among cutters-up regarding movement of ready-to-wear. Fabric manufacturers are informed that signs point to a firming in dress and suit prices, and that there is little likelihood of mid-season slashing. Cutters pay the higher levels quite readily, and the price tone as a whole is encouraging.

### Better Velvet Call

Output of transparent velvet has increased, but not beyond the increase in orders. Manufacturers have no difficulty in filling contracts at present; however, all orders are small, and August is expected to bring a decided increase in demand which might precipitate a tighter market.

Buyers show more interest in the higher quality crepe-back satins, which is viewed as a trade-up tendency for fall. Metallics are still slow, and no improvement is looked for at that end before the middle of next month.

## ▸Soviet Offers Cotton Prints on China Market

Soviet Russia is reported to be offering effective competition to British and Japanese cotton prints on the Chinese textile market, according to trade advices radioed to the Commerce Department by Commercial Attaché Julean Arnold at Shanghai. Japan is maintaining its hold on the business in coarse gray goods and Great Britain in fancy and quality lines, the reports indicate.

A Soviet wholesale establishment, opened in Mukden, Manchuria, during June, is displaying a variety of articles, including piece goods.

# KNIT GOODS MARKETS

**TEXTILE WORLD ANALYST**

## ◆Light Swimsuit Carry-Over Expected

BATHING-SUIT orders continue to taper off, but mills have plenty of orders on their books for immediate delivery, and the shipping departments are active. June sales were the best of the season, according to early estimates; it is indicative of the buy-as-you-sell policy among distributors that repeat swimsuit orders totalled about as much as original business. Manufacturers look to end the season with a very light carry-over, and this may be representative also of distributors. Retailers and jobbers carried minimum stocks this season, limiting purchases almost entirely to immediate requirements, and their present insistence upon spot shipment of small repeat orders points to very limited stocks.

Current swimsuit business being placed by distributors comes mostly from summer resorts; stores in large cities have enough stock either delivered or on order, to carry them through the remainder of the season, and they have virtually stopped buying.

Heavyweight sweaters are moving, but not as actively as their sister line, the heavyweight underwear. Many important distributors have yet to place their initial orders for sweaters, and mills look for increasing demand through the next few weeks. Orders are more backward than ever before; stocks in manufacturers' hands are light, and the knitters are hesitant about increasing output until orders show definite improvement.

## ◆Fall Underwear in Active Call

THERE has been a sharp increase in the call for heavyweight ribbed underwear lines, and indications point to a spirited movement of these stocks from now on. Orders come in freely, both large and small distributors showing eagerness to cover for early fall requirements. Contracts are small, but they are numerous enough to make a real dent in the very limited supplies in mills. There is more talk of a shortage of heavyweights in August; it is too early to do more than speculate on that, however. The most encouraging sign at present is that mills are disinclined to stampede into high-pressure production; output is little, if any, in excess of orders, and, assuming manufacturers hold to this policy, they will be in an excellent position when August brings its expected rush of fall business.

Leading ribbed underwear mills claim to be operating on a strictly produce-to-order basis. Prices are firm, but there is no prospect of a rise in August. Manufacturers do not look for an advance, though there is some chance that business may increase to the point where premiums will be paid for early shipment. Any recession in raw cotton levels would offset the firming, but mills regard the primary market as fairly stable.

Call for lightweight lines shows its seasonal decline, though there is still considerable movement of both cottons and rayons. Orders for track pants show a let-up; men's and women's rayons are in demand, especially the latter. There is a light but steady fill-in call for women's crepe and mesh rayon garments.

## ◆Increase Mesh Hosiery Output

HOSIERY manufacturers are growing so confident of the fall outlook, that they hesitate about accepting winter business at present levels. Distributors themselves are not over-anxious to cover ahead, and this attitude tallies with the sentiment among manufacturers, most of whom look for a tightening of prices, if raw silk continues its present firming trend.

Buying is light in all divisions at present, but this is normal, July being traditionally one of the quietest months of the year in the hosiery market. Chain stores continue to place small preliminary orders for wool-and-rayon lines, and some mills report that their fall volume to date equals that at this time last year.

Interest in the low-priced mesh lines has picked up, and mills once more find themselves sold ahead on output. The trade is far from unanimous regarding the prospects for the low-priced lace stockings. Some of the larger firms plan high-pressure output for August, claiming that orders already placed cover the anticipated production. Full-fashioned staples move unevenly. Mid-year inventories are in process, and distributors are not expected to do much real buying until stock-taking is completed.

Prices generally hold firm, and distress stock appears to have lessened. There is a surplus of certain full-fashioned numbers, retailing at less than a dollar, and this has caused some slashing; the weakness is limited to a small group of mills, however, and any perceptible pick-up in demand would bring a firming.

Half-hose demand is irregular, and continues to center on the low-priced lines, especially the rayon fancies retailing at 25c. Stocks are lighter, but price tone has not strengthened.

### ▸Association to Establish Hosiery Part Standards

A study of standard lengths for the various parts of men's and women's hosiery will be made by the research associate of the National Association of Hosiery & Underwear Manufacturers, it is announced by Louis Richard Keeffe, acting secretary. It is planned to establish standard lengths on the ribbed top of men's hosiery, the welt of women's stockings, and the high heel or high splicing, heel and toe of both men's and women's hosiery. The study will cover both circular-knit and full fashioned hosiery, in all gauges and needles, and in the following fiber constructions; silk, rayon, mercerized cotton, silk and rayon, and rayon and cotton.

All members of the association are requested to send one dozen pairs of each size of men's and women's hosiery they manufacture to E. M. Schenke, Research Associate, Bureau of Standards, Washington.

### ▸Botts To Offer Weltless Hosiery

John M. Botts, senior partner of Harrington & Waring, New York, announces that plans are proceeding on the new weltless full-fashioned hosiery which he will offer for delivery early in August. The stocking is made with a special construction, the chief advantage of which is stated to be a reduction in manufacturing cost and in material. Mr. Botts estimated that the weltless stocking would save an hour of the knitter's time daily. Patent has been applied for on the development.

Because of additional strands of silk in the welt, and a lock-stitch barrier, Mr. Botts holds that no actual need of welts exists. In the past, he said, manufacturers found that they were unable to remove the welts without leaving rough edges at the top. The present patent application covers a method of smoothing the edges as well as making possible picot tops.

### ▸Western Outerwear Group to Cut Dues

A reduction in dues for the members of the Western District, National Knitted Outerwear Association, was promised by A. J. Friedlander, M. Friedlander Knitting Co., Milwaukee, president of the association, in his report given at the semi-annual meeting and golf tournament held July 10 at the Woodmont Country Club, near Milwaukee, Wis., It was tentatively decided to hold a golf match in Chicago in September at the request of the Chicago members of the association.

# TEXTILE FINANCIAL NEWS

**TEXTILE WORLD ANALYST**

## ◆Kendall Betters Its 1930 First Quarter

FOR the first 24 weeks of 1931 the Kendall Co., operating cotton mills in the North and South, reports a net profit of $240,510 after depreciation, bond interest, taxes and provision for dividends on preferred stock of subsidiaries. This compares with $108,029 for the same period of 1930. After allowing for dividends of $103,700 on Series A preferred stock, net profit carried to surplus was $136,810. Current assets on June 13, 1931 totaled $6,641,937 and current liabilities, $1,175,797, leaving net working capital of $5,466,140, a ratio of about 5.6 to 1.

### N. E. Southern Corp. Report

The committee representing holders of 5% notes and scrip of the New England Southern Corp., which is a holding company for stock of the Lisbon Spinning Co., Lisbon Falls, Me., Pelzer Mfg. Co., Pelzer, S. C., and the Tucapau Mills, Tucapau, S. C., has sent a letter to the note and scrip holders. The letter said in part:

"The treasurer of New England Southern Corp. advised that, for the six months ended March 28, 1931, the combined results of the operations of New England Southern Corp's. three subsidiaries showed a profit of $30,509 after all charges, including interest on these companies' bank loans and depreciation, but not, of course, including interest on New England Southern Corp's. funded debts, namely, its 5% notes and the 7% notes of New England Southern Mills. As a result of this profit and of unexpanded depreciation, there has been, for the period, a total gain in the net quick assets of the three subsidiaries of $156,966, an amount almost equal to the full accrual of interest for the period on New England Southern Corp's. said funded debts. Combined interim results of operations by New England Southern Corp's three subsidiaries for April and May showed an additional small profit, after all charges; Tucapau Mills has paid off its entire bank debt, secured and unsecured, and Pelzer Mfg. Co. has reduced its bank debt to $150,000.

"In view of the foregoing and of prevailing business conditions, the undersigned believe that at the present time, the proper proceeding in the interests of the holders of the 5% notes and scrip is to await further developments before taking any action."

### Laurel Accepts Lincoln Offer

By a vote of 2,272 shares in favor to 135 against, preferred stockholders of the Laurel Lake Mills, Fall River, Mass., voted to accept the offer of the Lincoln Mfg. Corp., Fall River, by which the latter will take over all the property and assets and assume all liabilities of the former, in exchange for one share of General Cotton Corp. (of which the Lincoln mill is a unit) for each share of the preferred stock of Laurel Lake. President J. Whitney Bowen of General Cotton Corp., who represented the Lincoln mill at the meeting stated that the sale of the plant to his corporation would benefit the city and the banking interests, and stockholders would receive something of value in General Cotton Corp. stock whereas under liquidation proceedings the stockholders would receive nothing. Those opposed to accepting the offer claimed that the property was worth more than the price offered.

### Bigelow-Sanford Earnings Improve

Bigelow-Sanford Carpet Co., Inc., for the six months ended June 30, 1931 shows net profit of $683,600 after depreciation, taxes, etc., equal after preferred dividend requirements to $1.91 a share on the common. This compares with $525,668, or $1.41 a share on the common in the first six months of 1930. In the second half of 1930 the company operated at a loss of $1,134,370, thereby converting the profit of the first half into a net loss for the year of $608,702. Increased advertising appropriations, additions to the selling force, and economies in production methods are credited by President Sweetser for the improved showing during the first half of 1931, when business conditions had changed but little from those obtaining during the second half of 1930.

Total current assets as of June 30, 1931 were $14,429,242, and current liabilities of $693,918, leaving net working capital of $13,735,324. Working capital on June 30, 1930 was $17,076,583.

Net sales for the first half of this year reached $3,523,732, or at the rate of better than $7,000,000 a year. Sales for the entire 1930 year amounted to $5,997,181, and, in 1929, totaled $6,822,257.

### Dominion Textile Earnings

Earnings of the Dominion Textile Co., Ltd., Montreal, Quebec, in the fiscal year ended March 31, last, amounted to $1,367,515 after payment of bond interest and preferred dividends. Operating profit was $1,085,350, which, plus interest and other income, brought the total income to $1,807,302, compared with $2,079,931 in the previous year. Net working capital as of March 31, 1931 was $9,013,335 as compared with $9,244,296 at the end of the preceding fiscal year.

### Powdrell & Alexander

The statement of Powdrell & Alexander, curtain manufacturers, Boston, for the first half of 1931, sets a new high record. The company reported for the six months ended June 30, a net profit, after all charges, including State and Federal taxes, of $152,390, equal, after dividends on $490,900 of 7% preferred stock outstanding, to $2.42 per share on 55,788 no par common shares.

## ▶Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended July 21:

| | High | Low | Last Sale | Net Chge. |
|---|---|---|---|---|
| Adams Millis | 23½ | 23½ | 23½ | .... |
| *American Thread, pfd. | 3 | 3 | 3 | .... |
| American Woolen | 7½ | 6 | 7½ | +½ |
| American Woolen, pfd. | 31½ | 27½ | 31½ | +2½ |
| Belding-Heminway | 2½ | 2½ | 2½ | —½ |
| Botany Mills, A | 1½ | 1½ | 1½ | +½ |
| Cannon Mills | 20¼ | 20¼ | 20¼ | +¼ |
| Century Ribbon | 5 | 4½ | 4½ | —½ |
| Collins & Aikman | 14½ | 12½ | 14½ | +2 |
| Consolidated Textile | ⅜ | ⅜ | ⅜ | .... |
| Gotham Hosiery | 10½ | 8¼ | 8¼ | —1¼ |
| Industrial Rayon | 30¼ | 28 | 29½ | +½ |
| Kayser, Julius | 13 | 10½ | 13 | +1 |
| Kendall, pfd | 51 | 45½ | 51 | +3 |
| Mallinson | 2 | 2 | 2 | .... |
| *Mock Judson | 7½ | 7½ | 7½ | .... |
| Mohawk Carpet | 14½ | 12½ | 14 | +1½ |
| *Pepperell | 67½ | 66 | 67½ | +⅝ |
| Real Silk Hosiery | 8¼ | 6½ | 7 | .... |
| *Tubize | 5½ | 5½ | 5½ | —½ |
| United Piece Dye Works | 20 | 18 | 19¼ | —¼ |

*Listed on Curb.

## ▶Southern Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

| | Bid | Asked |
|---|---|---|
| Acme Spinning Co. | 48 | 60 |
| American Yarn & Processing Co. | 40 | 46 |
| Chadwick-Hoskins Co. (Par. $25) | 5 | 9 |
| Chadwick-Hoskins Co., 8%, pfd. | 80 | 88 |
| Crescent Spinning Co. | 40 | 48 |
| Durham Hosiery, 6%, pfd. | 17 | 23 |
| Erwin Cotton Mills Co., 6%, pfd. | 87 | 91 |
| Flint Mfg. Co. | .. | 58 |
| Flint Mfg. Co., 7%, pfd. | 83 | 92 |
| Hanes, P. H. Knitting Co. | 7 | 10 |
| Hanes, P. H. Knitting Co., 7%, pfd. | 80 | 92 |
| Linford Mills | 50 | 62 |
| Perfection Spinning Co. | 48 | 63 |
| Roanoke Mills, 1st. pfd. 7% | 41 | 55 |
| Rosemary Mfg. Co., pfd., 7% | 74 | 80 |
| Stowe Spinning Co. | 41 | 51 |
| Ware Shoals Mfg. Co. | .. | 100 |
| Ware Shoals Mfg. Co., 7%, pfd. | 70 | 85 |
| Winget Yarn Mills Co. | .. | 42 |
| Wiscasset Mills Co. | 120 | 135 |

(A. M. Law & Co., Spartanburg, S. C.)

| | | |
|---|---|---|
| Avondale Mills, Ala. | 525 | 650 |
| Bibb Mfg. Co. | 80 | 85 |
| Clifton Mfg. Co. | .. | 81 |
| D. E. Converse Co. | .. | 70 |
| Dunean Mills | 70 | 90 |
| Dunean Mills, pfd. | 94 | 98 |
| Gossett Mills | .. | 31 |
| Hunter Mfg. & Com. Co., pfd. | 73 | 76 |
| Judson Mills, A pfd. | 83 | 86 |
| Judson Mills, B pfd. | 79 | 83 |
| Monarch Mills | 70 | 80 |
| Newberry Cotton Mills | .. | 82 |
| Orr Cotton Mills | 35 | 40 |
| Pacolet Mfg. Co. | .. | 70 |
| Piedmont Mfg. Co. | .. | 80 |
| Riverside & Dan River Mills(Par $25) | 7 | 9 |
| Riverside & Dan River Mills, 6% pfd. | 54 | 58 |
| Southern Bleachery & Print Wks.,pfd | 40 | 50 |
| Spartan Mills | 95 | 105 |
| Union-Buffalo Mills, 1st pfd. | .. | 55 |
| Victor-Monaghan Co. | 39 | 41 |

## ▶New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of dealers.

| | Sale | Bid | Asked |
|---|---|---|---|
| Am. Mfg. Co., pfd. | 52 | 40 | 45 |
| Amoskeag | 8½ | .. | .. |
| Arlington | 18½ | 24 | 25 |
| Associated Textile | 35–36½ | .. | 35 |
| Bates | 60 | 44 | 49 |
| Berkshire Associates, com. | 12½ | 6 | 8 |
| Berkshire Associates, pfd. | 40½ | 25 | .. |
| Bigelow-Sanford, com. | 30 | .. | .. |
| Boott Mills | 120½ | 70 | 80 |
| Edwards | 80½ | 54 | 59 |
| Esmond, pfd. | 98 | 95 | 99 |
| Farr Alpaca | 33½–34 | 34 | 37 |
| Hamilton Woolen | 40 | 38 | 42 |
| Hill | 9 | 8 | 11 |
| Indian Orchard | 10 | 5 | 10 |
| Ludlow | 107½ | 106 | 108 |
| Merrimack, com. | 35 | 16 | .. |
| Nashua, com. | 7½ | 8 | 10 |
| Nashua, pfd. | 29 | 26 | .. |
| Naumkeag | 71–71½ | 68 | 72 |
| Newmarket | 16½ | 13 | 16 |
| Otis | 45 | 41 | 45 |
| Pacific | 19 | .. | .. |
| Pepperell | 66½ | 66 | 69 |
| Plymouth Cordage | 63 | 65 | .. |
| York | 8½ | 6½ | .. |

# QUOTATIONS

at close of business, July 22, 1931

Prices cover average qualities unless otherwise stated

## Cotton Goods

| | July 22 | July 15 | July 23, 1930 |
|---|---|---|---|
| **PRINT CLOTHS** | | | |
| 27 -in., 64x60, 7.60 | 3½c. | 3½-3¾c. | 4½c. |
| 38½-in., 64x60, 5.35 | 4¼-4¼c. | 4¼-5 c. | 5½c. |
| 39 -in., 68x72, 4.75 | 5¼c. | 5¼-5½c. | 6½-6¾c. |
| 39 -in., 72x76, 4.25 | 6 -6¼c. | 6¼c. | 7¼c. |
| 39 -in., 80x80, 4.00 | 6¼c. | 6¼-6¼c. | 7¼c. |
| **BROWN SHEETINGS** | | | |
| 36-in., 56x60, 4.00 | 5¼c. | 5¼c. | 6¾-7 c. |
| 36-in., 48x48, 3.00 | 5¼c. | 5¼c. | 8 -8¼c. |
| 37-in., 48x48, 4.00 | 4¾c. | 4¾- 5 c. | 6¼-6¼c. |
| **PAJAMA CHECKS** | | | |
| 36½-in., 72x80, 4.70 | 6 c. | 6 c. | 6¼-6¼c. |
| 36½-in., 64x60, 5.75 | 5-5¼c. | 5 c. | 5¼c. |
| **MISCELLANEOUS** | | | |
| Drills, 37-in., 3 yd. | 6 c. | 6¼c. | 8¼c. |
| Denims, 2.20 | 11 c. | 11 c. | 12½c. |
| Tickings, 8 oz. | 14 c. | 14 c. | 17½-17¾c. |
| Standard prints | 7¼c. | 7¼c. | 8 c. |
| Eastern staple ginghams, 27-in. | 8 c. | 8 c. | 10 c. |

## Cotton Waste

| | |
|---|---|
| Peeler comber | 7½- 8 |
| Peeler strips | 6¾- 7 |
| Sak. comber | 6¾- 7 |
| Choice willowed fly | 3¼- 3½ |
| Choice willowed picker | 3 - 3¼ |
| Sak. strips | 9 -10 |
| Linters (mill run) | 2½- 3½ |
| White spooler (single) | 5¾- 6¼ |

## Cotton Yarn

CARDED (Average Quality)

Double Carded 2c.—4c. higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

| | | | |
|---|---|---|---|
| 4s to 8s | $0.17 | 22s | $0.21 |
| 10s | .17½ | 24s | - .22 |
| 12s | .18 | 26s | - .23 |
| 16s | .18½ | 30s | - .24 |
| 20s | .19½ | 40s ex.qual. | .34 - .35 |

TWO-PLY SKEINS AND TUBES

| | | | |
|---|---|---|---|
| 8s-2 | $0.17 - .17½ | 26s-2 | $0.23 |
| 10s-2 | .17½- .18 | 30s-2 | - .24 |
| 12s-2 | .18 - .18½ | 36s-2 | - .30½ |
| 14s-2 | - .19 | 40s-2 | .31½- .32½ |
| 16s-2 | .19 - .19½ | 40s-hi.brk. | .34 - .35 |
| 20s-2 | .20 - .21 | 50s-2 | - .40 |
| 24s-2 | .22 - .22½ | 60s-2 | - .46 |

SINGLE WARPS

| | | | |
|---|---|---|---|
| 10s | $0.17-$0.17½ | 24s | $0.22 |
| 12s | - .17½ | 26s | - .22½ |
| 14s | .17½- .18 | 30s | - .24½ |
| 16s | .18 - .18½ | 40s.ex.qual. | - .35 |
| 20s | .19½- .20 | | |

TWO-PLY WARPS

| | | | |
|---|---|---|---|
| 8s-2 | $0.18 | 24s-2 | $0.22½ |
| 10s-2 | - .18½ | 26s-2 | - .23 |
| 12s-2 | - .19 | 30s-2 | .24 - .24½ |
| 14s-2 | - .19 | 40s-2 ordin. | .31½- .32 |
| 16s-2 | .19½- .20 | 50s-2 | - .40 |
| 20s-2 | .20 - .21 | 60s-2 | - .46 |

8s-3 and 4-ply skeins and tubes: tinged, 16–16½ white, 17-17½; waste, 15½

HOSIERY CONES (Frame Spun)

| | | | |
|---|---|---|---|
| 8s | $0.16½ | 22s | $0.20½- .21 |
| 10s | .16½- .17 | 24s | .21½- .22½ |
| 12s | - .17½ | 26s | .22½- .23½ |
| 14s | .18- .18½ | 30s tying | - .24 |
| 16s | .18 - .18½ | 30s reg | .24½- .25 |
| 18s | - .19 | 30s ex.qual. | .26½- .27½ |
| 20s | .19½- .20½ | 40s | .32 - .33 |

COMBED PEELER (Average Quality)

TWO-PLY—(Knitting Twist) Cones

| | | | |
|---|---|---|---|
| 20s-2 | $0.31 - .33 | 60s-2 | $0.50 |
| 30s-2 | .35 - .36 | 70s-2 | .60 |
| 36s-2 | .37 - .38 | 80s-2 | .71 |
| 40s-2 | .39 - .40 | 90s-2 | .90 |
| 50s:2 | .45 - .46 | 100s-2 | 1.10 |

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

| | | | |
|---|---|---|---|
| 20s-2 | $0.30 - .31 | 60s-2 | .51 - .52 |
| 30s-2 | .35 - .36 | 70s-2 | .61 - .62 |
| 36s-2 | .37 - .38 | 80s-2 | .72 - .74 |
| 40s-2 | .39 - .40 | 90s-2 | .90 - .92 |
| 50s-2 | .44 - .46 | 100s-2 | 1.10 -1.12 |

SINGLES

| | | | |
|---|---|---|---|
| 12s | $0.26½- .27 | 30s | $0.34½- .35½ |
| 14s | .27 - .27½ | 38s | .37 - .38½ |
| 16s | .27½- .28 | 40s | .39½- .40½ |
| 18s | .28 - .28½ | 50s | .44 - .45 |
| 20s | .29 - .29½ | 60s | .50 - .52 |
| 24s | .31 - .31½ | 70s | .60 - .63 |
| 28s | .33½- .34½ | 80s | .71 - .75 |

MERCERIZED CONES—(Combed, Ungassed)

| | | | |
|---|---|---|---|
| 26s-2 | $0.47 - .48 | 90s-2 | $1.18 -1.23 |
| 30s-2 | .49 - .50 | 100s-2 | 1.48 -1.53 |
| 36s-2 | .52 - .53 | 120s-2 | 1.88 -1.93 |
| 40s-2 | .55 - .56 | 30s | .60 |
| 45s-2 | .57 - .58 | 40s | .62 |
| 50s-2 | .59 - .60 | 50s | .67 - .70 |
| 60s-2 | .67 - .68 | 60s | .77 |
| 70s-2 | .79 - .80 | 70s | .87 - .90 |
| 80s-2 | .90 - .91 | 80s | 1.05 - 1.10 |

## Cotton Prices and Statistics

FLUCTUATIONS OF FUTURES

| | Closed July 16 | For Week High | For Week Low | Closed July 22 | Net Chge. |
|---|---|---|---|---|---|
| July | 9.14 | 9.49 | 8.87 | 8.99 | —.15 |
| August | 9.21 | 9.54 | 9.02 | 9.02 | —.19 |
| September | 9.34 | 9.67 | 9.15 | 9.15 | —.19 |
| October | 9.47 | 9.82 | 9.22 | 9.29 | —.18 |
| November | 9.59 | 9.92 | 9.40 | 9.40 | —.19 |
| December | 9.70 | 10.03 | 9.43 | 9.53 | —.17 |
| January | 9.81 | 10.14 | 9.56 | 9.65 | —.16 |
| February | 9.89 | 10.23 | 9.74 | 9.74 | —.15 |
| March | 9.99 | 10.35 | 9.73 | 9.83 | —.16 |
| April | 10.05 | 10.42 | 10.05 | 9.91 | —.14 |
| May | 10.15 | 10.51 | 9.90 | 9.99 | —.16 |

SPOT FLUCTUATIONS FOR WEEK

(Middling)

| | New York | New Orleans | Liverpool |
|---|---|---|---|
| Thursday, July 16 | 9.30 | 9.16 | 4.92 |
| Friday, July 17 | 9.30 | 9.06 | 5.17 |
| Saturday, July 18 | 9.30 | 9.06 | 5.12 |
| Monday, July 20 | 9.65 | 9.40 | 5.17 |
| Tuesday, July 21 | 9.40 | 9.21 | 5.25 |
| Wednesday, July 22 | 9.15 | 9.01 | 5.11 |

FOREIGN COTTONS

Egyptian Cotton

| Alexandria Exchange, July 21 | | Change |
|---|---|---|
| Nov. Sak | 15.37 | —0.03 |
| Oct. uppers | 10.82 | +0.15 |

July-Aug. Shipment c. i. f. Boston (Tariff not included)

| | |
|---|---|
| Fully good fair Sak | 17.00 |
| Fully good fair to good Uppers | 12.80 |

(By Anderson, Clayton & Co.)

| Foreign cottons F. O. B. New York, Cents | |
|---|---|
| Peruvian Tanguis Strict Middling | 20 |
| Peruvian Pima No. 1 | 19 |
| Peruvian Moderate Rough | 15½ |
| Peruvian Full Rough | 18 |
| China Tientsin No. 1 | 11½ |
| India Rough | 8 to 11 |
| India Smooth | 8 to 11 |

(By Bruns-Nordeman Co.)

BASIS MIDDLING

| | Saturday, July 18 | Saturday, July 11 |
|---|---|---|
| 10 Markets average | 8.80 | 8.81 |
| Memphis | 8.35 | 8.45 |

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

| Grade Strict Middling | Basis Steady |
|---|---|
| 1⅛-in | 11.25-11.50c. |
| 1 3/16-in | 12.50-12.75c. |
| 1¼-in | 17.00-17.50c. |

CURRENT SALES

| | For Week | Prev. Week | Week Before |
|---|---|---|---|
| Memphis Total | 1,566 | 1,842 | 5,418 |
| F.o.b. included in total | 1,566 | 1,616 | 4,545 |
| 10 Markets | 24,195 | 8,158 | 15,873 |

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

| | For Week | Last Year | Year Before |
|---|---|---|---|
| Net receipts | 294 | 897 | 1,296 |
| Gross receipts | 8,019 | 5,722 | 4,780 |
| Total since Aug. 1, net | 657,929 | 943,417 | 862,608 |
| Shipments | 19,010 | 14,297 | 10,417 |
| Total since Aug. 1 | 1,412,412 | 1,873,156 | 1,836,952 |
| Total stock | 120,701 | 159,607 | 56,865 |
| Decrease for week | 10,991 | 8,575 | 5,637 |
| Unsold stock in hands of Memphis factors | 12,747 | 27,550 | ..... |
| Increase for week | 1,051 | 396 | ..... |

AVERAGE PRICE JULY-AUG. SHIPMENT HARD WESTERN COTTON

F.o.b. New England

| | Middling | St. Middling |
|---|---|---|
| 1 1/16-in | 11½-11¾c. | 12½-12½c. |
| 1⅛-in | 12½-12¾c. | 13½-13½c. |
| 1 3/16-in | 14½-14¾c. | 15½-15¾c. |
| 1¼-in | 19 -20c. | 21 -22c. |

Basis on New York, October, 9.53

SPOT FLUCTUATIONS AND STOCKS

| Markets | Middling July 15 | Middling July 22 | Sales | Stocks This Week | Stocks Last Year |
|---|---|---|---|---|---|
| Galveston | 9.05 | 9.05 | 709 | 414,949 | 195,179 |
| New Orleans | 8.85 | 9.01 | 1,531 | 608,054 | 334,403 |
| Mobile | 8.10 | 8.20 | 224 | 217,552 | 10,285 |
| Savannah | 8.68 | 8.68 | 212 | 352,546 | 104,309 |
| Norfolk | 8.69 | 8.88 | 14 | 55,035 | 49,306 |
| New York | 9.05 | 9.15 | 1,413 | 228,435 | 238,458 |
| Augusta | 8.56 | 8.63 | 479 | 63,843 | 49,029 |
| Memphis | 8.20 | 8.20 | 1,655 | 113,866 | 155,305 |
| St. Louis | 8.60 | 9.00 | ..... | 3,972 | 7,723 |
| Houston | 8.85 | 9.00 | 228 | 756,805 | 535,970 |
| Dallas | 8.55 | 8.65 | 1,212 | 6,488 | 10,721 |

DIFFERENCES ON AND OFF MIDDLING

WHITE GRADES

| | Dallas | Memphis | Montgomery | Augusta | Average |
|---|---|---|---|---|---|
| M. F | .75† | 1.00† | .85† | .75† | 0.88† |
| S. G. M | .60† | .75† | .75† | .63† | .70† |
| G. M | .50† | .50† | .60† | .50† | .52† |
| S. M | .35† | .25† | .35† | .25† | .31† |
| S. L. M | .50* | .50* | .50* | .50* | .49* |
| L. M | 1.00* | 1.00* | 1.00* | 1.00* | 1.00* |
| S. G. O.** | 1.75* | 1.80* | 1.75* | 1.75* | 1.76* |
| G. O | 2.40* | 2.05* | 2.50* | 2.25* | 2.36* |

YELLOW TINGED

| | | | | | |
|---|---|---|---|---|---|
| G. M | .40* | .50* | .50* | .50* | 0.47* |
| S. M | .65* | .75* | .75* | .75* | 0.72* |
| M.** | 1.25* | 1.00* | 1.25* | 1.25* | 1.20* |
| S. L. M | 1.75* | 1.75* | 1.75* | 1.75* | 1.75* |
| L. M.** | 2.50* | 2.00* | 2.50* | 2.50* | 2.40* |

YELLOW STAINED

| | | | | | |
|---|---|---|---|---|---|
| G. M | 1.00* | 1.25* | 1.00* | 1.00* | 1.03 |
| S. M.** | 1.50* | 1.75* | 1.50* | 1.50* | 1.53 |
| M.** | 2.50* | 2.00* | 2.25* | 2.50* | 2.33 |

BLUE STAINED

| | | | | | |
|---|---|---|---|---|---|
| G M.** | 1.25* | 1.25* | 1.25* | 1.25* | 1.25* |
| S. M.** | 1.75* | 1.50* | 1.75* | 1.75* | 1.70* |
| M.** | 2.50* | 1.75* | 2.50* | 2.50* | 2.35* |

**Grades not deliverable on contract. †On Middling *Off Middling.

# Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

| | | | |
|---|---|---|---|
| Fine delne.. | $0.25½–$0.26½ | ¾ blood.... | $0.22 –$0.23 |
| Fine clthg.. | .21 – .22 | ½ blood.... | .21 – .22 |
| ¼ blood..... | .24 – .25 | | |

TEXAS AND CALIFORNIA (CLEAN BASIS)

| | |
|---|---|
| Texas, 12 months | $0.59 –$0.60 |
| California, Northern | .52 – .53 |

PULLED—EASTERN (CLEAN BASIS)

| | | | |
|---|---|---|---|
| A.A. | $0.64 –$0.69 | B-Super... | $0.45 –$0.50 |
| A-Super.... | .53 – .57 | C-Super... | .42 – .45 |

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

| | |
|---|---|
| Staple fine | $0.61 –$0.64 |
| Staple ¾ bld. | .57 – .58 |
| Fine and fine medium | .55 – .58 |
| ¾ blood | .48 – .50 |
| ½ blood | .43 – .46 |

MOHAIR—DOMESTIC

| | |
|---|---|
| Best carding | $0.23 –$0.25 |
| Best combing | .31 – .33 |

MOHAIR FOREIGN (IN BOND)

| | |
|---|---|
| Turkey fair, average | $0.17 –$0.20 |
| Cape firsts | .18 – .21 |

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

| | |
|---|---|
| Australia: | |
| 70s | $0.53 –$0.55 |
| 64s | .46 – .48 |
| 58s-60s | .41 – .43 |
| (IN GREASE) | |
| Montevideo: | |
| 58s-60s | $0.19 –$0.20 |
| 56s | .18 – .19 |
| 50s | .16 – .17 |
| Buenos Aires: | |
| 4s, 40-44s | $0.14 –$0.15 |
| 5s, 36-40s | .12 – .14 |

FOREIGN CARPET (GREASE BASIS IN BOND)

| | |
|---|---|
| Aleppo washed | $0.22 –$0.24 |
| China: Combing No. 1 | .13 – .14 |
| China Filling Fleece | .12 – .14 |
| Szechuen ass't. | .12 – .14 |
| Cordova | .14 – .15 |
| Scotch black face | .15 – .17 |
| East India: Kandahar | .17 – .19 |
| Vican'r | .23 – .25 |
| Joria | .23 – .24 |

# Worsted Yarns

ENGLISH SYSTEM WEAVING

| | |
|---|---|
| 2-20s 36s | $0.77½–0.80 |
| 2-24s 40s | .... – .85 |
| 2-26s 44s | .87½– .90 |
| 2-28s 46s | .92½– .95 |
| 2-30s 48s | .95 – .97½ |
| 2-32s 50s | .97½–1.00 |
| 2-30s, 64s fancy mixes | 1.37½–1.45 |
| (Single yarns 5c. less than above) | |
| 2-36s, 58s | $1.22½–1.25 |
| 2-40s, 60s | ....–1.32½ |
| 2-40s, 64s | 1.35 –1.37½ |
| 2-50s, 66s | 1.45 –1.50 |
| 2-60s, 70s | 1.85 –1.87½ |

ENGLISH SYSTEM KNITTING

| | |
|---|---|
| 2-20s, 44s in oil | $0.75 –0.77½ |
| 2-20s, 48s in oil | ....– .80 |
| 2-20s, 50s in oil | .80 – .82½ |
| 2-20s, 56s in oil | .92½– .95 |
| 2-20s, 60s in oil | 1.10 –1.12½ |
| 2-20s, 64s in oil | 1.20 –1.25 |
| 1-18s, 48s dyed | .97½–1.00 |
| 1-18s, 50s dyed | .97½–1.00 |
| (Oil yarns 17½c. less) | |
| FRENCH SYSTEM | |
| 1-20s, 58s | $1.05 –1.07½ |
| 1-20s, 60s | 1.10 –1.12½ |
| 1-18s, 64s, dyed | 1.32½–1.35 |
| 1-26s, 64s | 1.12½–1.15 |
| 1-30s, 60s, Warp | 1.20 –1.22½ |
| 1-30s, 64s, Warp | 1.22½–1.25 |
| 2-30s, 64s, Fancy mixes | 1.45 –1.47½ |
| 2-40s, 64s, Zephyrs | 1.35 –1.40 |
| 1-50s, 60s | 1.47½–1.52½ |
| 2-50s, 60s | 1.50 –1.55 |
| 1-60s, 70s | 1.85 –1.87½ |
| 2-60s, 70s | 1.90 –1.95 |
| FRENCH SPUN MERINO WHITE | |
| 1-30s, 50-50-58s on cops | $ .95 –1.00 |
| 1-40s, 50-50-60s on cops | 1.10 –1.15 |
| 1-40s, 50-50-64s on cops | 1.12½–1.15 |
| 1-40s, 50-50-64s Australian cops | 1.20 –1.25 |

Underwear mixes, 3 to 5c., Solid color, 35c. additional.

## New York Top Futures

| | Closed July 15 | For the Week High | Low | Closed July 21 | Net Chge. |
|---|---|---|---|---|---|
| September | 73.00 | 75.00 | 73.00 | 75.00 | +2.00 |
| October | 72.10 | 74.00 | 72.10 | 74.00 | +1.90 |
| November | 72.00 | 73.90 | 72.00 | 73.90 | +1.90 |
| December | 73.00 | 73.90 | 72.60 | 73.90 | +0.90 |
| January | 72.00 | 73.90 | 72.00 | 73.90 | +1.90 |
| February | 72.00 | 73.90 | 72.00 | 73.90 | +1.90 |
| March | 72.00 | 73.90 | 72.00 | 73.90 | +1.90 |
| April | 72.00 | 73.90 | 72.00 | 73.90 | +1.90 |
| May | 72.00 | 73.90 | 72.00 | 73.90 | +1.90 |

# Tops and Noils

TOPS—BOSTON

| | |
|---|---|
| Fine (64-66s) | $0.85–$0.87 |
| Half-blood (60-62s) | .78– .80 |
| High ¾ blood (58s) | .70– .72 |
| Aver. ¾ blood (56s) | .63– .65 |
| Low ¾ blood | .60– .62 |
| High ½ blood (50s) | .53– .55 |
| 46s S. A. and N. Z. | .51– .53 |
| 44s S. A. and N. Z. | .50– .52 |
| 40s S. A. and N. Z. | .48– .50 |

TOPS—BRADFORD, ENG. (JULY 17)

| | | | |
|---|---|---|---|
| Fine (70s) | 26 d | ¾ bld. (56s) | 15½d |
| Fine (64s) | 23 d | ½ bld. (50s) | 12½d |
| ½ bld. (60s) | 21 d | Cross-bred (46s) | 10½d |
| ¾ bld. (58s) | 18 d | | |

NOILS—BOSTON

| | | | |
|---|---|---|---|
| Fine | $0.38–$0.41 | High ½ bld.. | $0.31–$0.33 |
| Half-bld.... | .36– .38 | Low noils... | .27– .30 |
| Aver. ¾ bld.. | .34– .36 | Medium colored... | .24– .26 |
| Fine colored. | .31– .33 | | |

# Wool Substitutes

WOOL WASTE

| | |
|---|---|
| Lap, fine white | $0.63 –$0.67 |
| Lap, fine colored | .46 – .50 |
| Hard ends, fine white | .52 – .55 |
| Hard ends, ½ blood white | .37 – .40 |
| Hard ends, fine colored | .25 – .27 |
| Hard ends, medium colored | .18 – .20 |
| Card, fine white | .23 – .26 |
| Burr, fine Carbonizing | .27 – .30 |

OLD WOOLEN RAGS (GRADED FOR MFRS.)

| | |
|---|---|
| Merinos, Coarse Light | $0.05 –$0.05½ |
| Merinos, Fine Dark | .03½– .04 |
| Merinos, Fine Light | .11 – .11½ |
| Serges, Blue | .05½– .06 |
| Serges, Black | .05½– .06 |
| Serges, Red | .08 – .09 |
| Knit, White | .23 – .24 |
| Knit, red | .10½– .11 |
| Knit, Light Hoods | .13 – .14 |
| Worsted, Light | .05 – .05½ |
| Worsted, Blue | .05½– .06 |
| Worsted, Black | .06 – .06½ |

# Silk Yarns

THROWN SILK (60 day basis)

| | Nominal |
|---|---|
| Japan organzine, 2 thd. spec. gd. XX. sk. 85% | $4.00 |
| Japan organzine, 2 thd. sp. crack. sk. 81% | 3.65 |
| Japan crepe, 3 thd. gd. XX bob. 83% | 3.80 |
| Japan crepe, 3 thd. sp. crack. bob. 81% | 3.60 |
| Japan crepe, 4 thd. crack bobbins, 78% | 3.60 |
| Japan grenadine, 4 thd. sp. grand singles, 87% | 5.05 |
| Japan grenadine 3 thd. 90% | 5.80 |
| Canton crepe, 3 and 4 thd. ns. 14/16 on bobbins | 2.65 |
| Hosiery tram, 3 thd. Japan 90% | 4.80 |
| Hosiery tram, 5 thd. Japan, 85% | 3.65 |
| Hosiery tram, crack XX 78% | 3.30 |

SPUN SILK YARNS (Terms: net 30)

| | | | |
|---|---|---|---|
| 40/2 | $3.10 | 60/2 | $3.45 |
| 54/2 | 3.30 | 62/1 | 2.35 |

# Raw Silk

(60 Day Terms. Spot Goods.)

| | 13/15 White | 20/22 White | 20/22 Yellow |
|---|---|---|---|
| Super Grand, 86/88% | $3.00 | $2.50 | $2.35 |
| Special Grand, 85% | 2.80 | 2.40 | 2.30 |
| Grand XX, 83% | 2.65 | 2.35 | 2.25 |
| Special Crack, 81% | 2.55 | 2.35 | 2.25 |
| Crack XX, 78% | 2.45 | 2.30 | 2.20 |
| Extra Extra, 73% | 2.40 | .... | .... |
| Best Extra, 68% | 2.35 | .... | .... |
| Canton filature, new style, 14/16 | | | $1.65 |
| Canton filature, new style, 20/22 | | | 1.55 |
| Tussah filature, 8 cocoon | | | 1.05 |

NATIONAL RAW SILK EXCHANGE

| | Close July 15 | For the Week High | Low | Close July 21 | Net Chge |
|---|---|---|---|---|---|
| July | 2.40 | 2.45 | 2.39 | 2.41 | +.01 |
| August | 2.36 | 2.41 | 2.34 | 2.36 | .... |
| September | 2.36 | 2.38 | 2.33 | 2.35 | —.01 |
| October | 2.35 | 2.38 | 2.33 | 2.34 | —.01 |
| November | 2.35 | 2.37 | 2.32 | 2.32 | —.03 |
| December | 2.35 | 2.37 | 2.32 | 2.32 | —.03 |
| January | 2.35 | 2.37 | 2.32 | 2.32 | —.03 |
| February | 2.35 | 2.37 | 2.33 | 2.33 | —.02 |

Total number of bales, 3,920. Total approximate value, $1,276,332. Trading unit crack XX 13/15 white 78%.

# Domestic Rayon

VISCOSE PROCESS

| Denier | Filament | First | Second |
|---|---|---|---|
| 50 | 14 | $2.15 | $1.95 |
| 75 | 18-30 | 1.35 | 1.25 |
| 100 | 18-40 | 1.10 | 1.00 |
| 125 | 36-50 | 1.00 | .90 |
| 150 | 30 | .70 | .67 |
| 150 | 24-40 | .75 | .72 |
| 150 | 60 | .85 | .82 |
| 150 | 75-90 | .85 | .82 |
| 170 | 24-27 | .75 | .72 |
| 170 | 60 | .85 | .82 |
| 200 | 30 | .75 | .72 |
| 200 | 35-42 | .75 | .72 |
| 300 | 42-62 | .63 | .60 |
| 450 | 54-60 | .63 | .60 |
| 600 | 72-96 | .63 | .60 |
| 900 | 100-144 | .63 | .60 |

NITRO-CELLULOSE PROCESS

| Denier | First Qual. | Second Qual. | Denier | First Qual. | Second Qual. |
|---|---|---|---|---|---|
| 75 | $1.35 | $1.25 | 150 | $0.75 | $0.72 |
| 100 | 1.05 | .95 | 175 | .75 | .72 |
| 125 | .95 | 85 | | | |

CUPRAMMONIUM PROCESS

| Denier | Filament | Price | Denier | Filament | Price |
|---|---|---|---|---|---|
| 15 | 24 | $3.10 | 65 | 45 | $2.00 |
| 25 | 24 | 2.85 | 80 | 60 | 1.70 |
| 30 | 24 | 2.60 | 100 | 75 | 1.35 |
| 40 | 30 | 2.40 | 120 | 90 | 1.22 |
| 52 | 30 | 2.20 | 150 | 112 | 1.10 |
| | | | 180 | 135 | .97 |

ACETATE PROCESS

| Denier | Price | Denier | Price |
|---|---|---|---|
| 45 | $2.25 2.75 | 120 | $1.90 |
| 55 | 2.05–2.55 | 140 | 1.30 |
| 65 | 2.45 | 150 | 1.40–1.85 |
| 75 | 1.80–2.70 | 200 | 1.55 |
| 100 | 1.65–2.45 | 300 | 1.50 |

# Rayon Waste

| | |
|---|---|
| Open bleached waste | $0.13–$0.14 |
| Open unbleached waste | .10½ |
| Bleached thread waste (mfs.) | .09 |
| Bleached thread waste (misc.) | .06– .07 |
| Colored thread waste | .01 |
| Colored clips | .04 |

CONVERTED RAYON WASTE

| | |
|---|---|
| Bleached tops | $0.30–0.32½ |
| Unbleached tops | .28– .29 |
| Bleached noils | .11 |
| Unbleached noils | .09½ |
| Bleached garnetts | .12 |
| Unbleached garnetts | .13 |
| Colored garnetts | .10– .11 |

# Silk Waste

| | |
|---|---|
| Kibizzo Kakai Grand XX | $0.50 |
| Kibizzo Kakai Triple Extra | .44 |
| Frison Grand Double | .49½ |
| Pierced Cocoons | .50 |

## ▸ Varied Rayons in New Pacific Mills Line

All-rayon and rayon-and-cotton flat crepe, crepe faille, taffeta and novelty weaves are included in Pacific Mills' new fall rayon lines launched recently; the majority are issued in cooperation with The Viscose Co. Quality-Control Plan, and bear the consequent endorsement of the Better Fabrics Testing Bureau of the National Retail Dry Goods Association. "Loraton" flat crepe, made entirely from Crown Rayon yarn, is the first all-rayon crepe which Pacific Mills has ever introduced. It is offered in an attractive collection of prints. About 25 plain shades, light, medium and dark, supplement the line.

A new faille crepe of rayon and cotton construction, with sufficient weight and firmness to tailor well in suits, separate skirts and jackets, is "Arnsbrae" crepe faille. Among the rayon and cotton flat crepes is Somali, a sixty-filament cloth of popular construction in prints and plain shades. "Dixie Belle" crepe, another rayon and cotton construction, not quality controlled, is offered in prints only. Zamora taffeta, a crisp rayon and cotton plain cloth, follows the vogue for taffeta with small dress prints and a typical taffeta plaid for frocks and blouses. Other fabrics are "Rayundy" a rayon and cotton lingerie number, and "Jacqsheen," a patterned all-rayon satin twill.

## ▸ W. & J. Sloane Forms Converting Department

Because of the expansion of its fabric division, and the increasing demand from out-of-town consumers for its exclusive designs, W. & J. Sloane has created a fabric wholesale converting department.

Bertrand F. Bell of W. & J. Sloane has been appointed manager of the new department, and is handling all arrangements with outside organizations to carry the exclusive line of Sloane quality fabrics. The line will be confined to selected customers in each city.

## ▸ Sauquoit Silk Mfg. Co. Announces Changes

The Sauquoit Silk Mfg. Co., 4015 Clarissa Street, Philadelphia, has completed plans to abandon plant in Philadelphia about the first of next year. All weaving operations will be located at the company's present mill at Bethlehem, Pa., and all throwing and spinning at the plant at Scranton. The sales and executive offices will be located in New York. The company is now engaged in scrapping old equipment and machinery to be discarded. New equipment will be installed which will materially add to the potential production of yarns and fabrics. This move is for the purpose of concentration as well as increased efficiency and economy. Changes in styles also played an important part. The Philadelphia plant was especially equipped for dyeing silk yarns to be woven into fabrics. In the future in order to meet present trade demands, goods will be woven in the gray, and dyed and finished as required.

## ▸ Purchasing Organization for Group Buying

The Fisher Textile Purchasing Co. has been organized by H. E. Fisher, 269 South 59th Street, Philadelphia. Mr. Fisher was for over 15 years connected with the centralized purchasing department of the Duplan Silk Corp., Hazleton, Pa. This new organization will purchase supplies and equipment for mills, and will offer the advantages of group buying as well as standardized supplies. Arrangements have been completed whereby the company will purchase supplies for several mills, including Pen Argyl Silk Co., Adelaide Ribbon Mills, Tilt Silk Mill, Progressive Silk Mills, etc.

For the present Mr. Fisher is specializing on purchases for silk throwing, weaving and knitting mills.

## ▸ New Skin Dyeing Machine

(*Continued from page 60*)

In addition to its use for dyeing vat colors, the machine is recommended for applying other types of dyestuffs; for degumming silk; and for tinting all yarns. The machine is available in one-, three-, and seven-tube units; and each unit will take care of a wide range in capacity. For instance, each tube will handle with equally good results from 2 to 10 lb., so that the seven-tube machine will handle all lots from 15 to 75 lb.

Standard equipment has a tank of monel metal with all joints lock-seamed and silver soldered. The tank is supported by a heavy iron framework fitted with adjustable feet for leveling. Yarn tubes are of monel metal, and the pump and valves are of bronze. The machine is equipped complete with thermometer, water gage, and dye-feed device. Special machines having all pipes and pumps of monel metal can be furnished, and other machines especially designed for sulfur colors are built of all iron.

## ▸ Bassett Temporarily at Bemberg Greensboro, N. C., Office

Chester C. Bassett, who has been connected with the New York sales office of American Bemberg Corp., has been temporarily transferred to the Greensboro, N. C., office, succeeding Gordon R. Hope, resigned. R. W. Green, formerly manager of manufacturing at the Ashland Corp., Jewett City, Conn., has joined the Bemberg organization as weaving technician.

## ▸ Expect Farm Board Cotton Policy Statement Soon

Now that the Farm Board's policy respecting its wheat holdings has been announced, interest is centering on what its attitude will be toward cotton. The Board has refused to renew its promise to keep its wheat off the market.

Inasmuch as the period over which the Board promised to hold its cotton expires July 31, it is evident that a statement of policy must soon be issued. It is probable that cotton will share the same fate as wheat although it is not entirely certain. One mitigating factor in favor of cotton, is the statement by Farm Board members that the cotton growers have done better than the wheat growers in curtailing production. This implies that the cotton growers are more entitled to consideration.

Even though it has refused to keep its wheat holdings off the market for another year, the Farm Board does not intend to create the impression that its selling activities will be to the detriment of wheat growers. According to the official announcement, Farm Board wheat will be sold in such a manner as to prevent any undue interference with the marketing of the new crop. There is some skepticism on the part of cotton cooperative officials as to whether or not any action toward keeping Farm Board cotton off the market has much effect on price levels. Those who ascribe to this belief, call attention to the fact that cotton continued to drop in price last year after the Government had promised to keep its holdings off the market. This is not conclusive proof, however, since the decline might have been greater if the Farm Board had not taken its stand.

## ▸ Rayon Imports for May

The Bureau of Foreign and Domestic Commerce reports imports of rayon and other synthetic textile fibers into the United States during May, 1931, as follows:

| | Pounds | Dollars |
|---|---|---|
| **Yarns** | | |
| France | 9,689 | 13,618 |
| Germany | 65,488 | 43,522 |
| Italy | 15,365 | 9,783 |
| Netherlands | 30,800 | 13,665 |
| Switzerland | 110 | 203 |
| United Kingdom | 10,800 | 13,902 |
| | 132,252 | 94,693 |
| **Spun Yarn and Thread** | | |
| Canada | 15 | 14 |
| France | 67 | 315 |
| Switzerland | 6,393 | 3,452 |
| Japan | 6 | 11 |
| United Kingdom | 58 | 173 |
| | 6,539 | 3,965 |
| **Filaments, including artificial horsehair** | | |
| Switzerland | 16,288 | 16,521 |
| United Kingdom | 42,818 | 51,236 |
| | 59,106 | 67,757 |
| **Waste** | | |
| Belgium | 226 | 20 |
| Germany | 71,857 | 6,538 |
| Italy | 65,214 | 6,681 |
| | 137,297 | 13,239 |
| **Cut or Staple Fiber** | | |
| Germany | 11,105 | 3,469 |
| France | 441 | 144 |
| United Kingdom | 15,300 | 8,621 |
| | 26,846 | 12,234 |

## Holmes Mill in New Bedford Under Option to C. E. Brady

Resumption of operations at the Holmes Mill, New Bedford, Mass., is a possibility as a result of negotiations between the management and Charles E. Brady, former treasurer of the Potomska Mill. Mr. Brady has an option on the plant holding good until Sept. 1, and purchase is said to be dependent upon the prospective buyer being able to obtain box looms to install in the plant, with the intention of turning it into a cloth mill. No New York firm is associated with the plans, according to Mr. Brady. The Holmes was closed down some weeks ago when the management failed to obtain the necessary capital to continue operations.

## Sudanette Co. to Sell Entire Output of Page Mill

Merchandising of the entire cloth output of the Page Mill, New Bedford, Mass., is to be handled by the Sudanette Co., effective Aug. 1, according to announcement made by William W. Hobbs, president of Sudanette. In future, the cloth will be converted and sold finished instead of in the gray as formerly, this marking a significant departure in the operation of the mill.

Distribution developed for Sudanette will be employed to place the goods in the hands of selected specialty garment producers. Offices of the Sudanette Co. will be moved to New York the end of this month, and will be close to Cohn-Hall-Marx, the house handling the output of United Merchants and Manufacturers, of which the Page is the New Bedford unit.

## Move to Standardize Spun Rayon Counts

With the aim of arranging a conference to establish uniform counts in the numbering of spun rayon yarns, a preliminary meeting has been called by the Silk Association of America and the United States Testing Co., to be held next Tuesday morning at the Silk Association's offices in New York. Leaders in the spun rayon field will give their views on how standardization may best be effected, and then a date will be set for a general meeting.

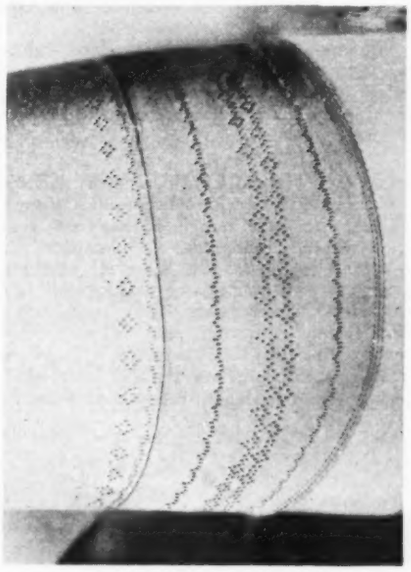
## Commercial Factors Institutes Lecture Course

Commercial Factors Corp., New York, is sponsoring a series of six lectures, to be held during the summer at the Alexander Hamilton Institute, 13 Astor Place, for the purpose of improving the knowledge of its employees and others on the relation of a factor to his client. Each lecture will be addressed by a senior officer of Commercial Factors Corporation. Although registration for the course is voluntary, more than 50% of the company's employees attended the opening lecture July 21. There also were present numerous junior executives from prominent banking institutions.

Robert G. Blumenthal, president, gave an introductory talk and the first lecture of the series was given by I. Edwin Goldwasser, vice-president of Commercial Factors Corp., whose subject was "What is a Factor?"

## Lace Top Vogue in Women's Hosiery

The vogue for lace tops has been one of the outstanding features of the current hosiery season. Below is shown an interesting pattern produced on the Scott & Williams' "Model K." This machine is particularly adapted to lace



tops; it produces fancy welts with lace and colored stripes, and also picot, in color. The growing call for lace tops has been ascribed to the feminine style trend in women's apparel; however, it has recently been pointed out that the lace top acts as a run stop, which is an additional point in its favor.

## Oppose 90% Lace Hose Tax

Lace hosiery importers are planning a protest to the Treasury Department against the request recently made by the National Association of Hosiery and Underwear Manufacturers for a 90% ad valorum duty upon cotton net or lace stockings. The present duty is 50%. The importers have asked the Bureau of Customs for a hearing.

## Duplan Concentrates New York Offices

Duplan Silk Corp., this week rearranged its New York location. The firm's offices at 135 Madison Ave. and at 530 Seventh Ave. were discontinued, and all business hereafter will be transacted from a new general sales and administration office in the Continental Building, 1450 Broadway.

## Lewine Continues As Silk Exchange President

The National Raw Silk Exchange, at its annual election held Tuesday, in New York, reelected Jerome Lewine as president, this being Mr. Lewine's third term. There was no opposing candidate. Mr. Lewine is a member of the firm of H. Hentz & Co. The exchange elected Charles Muller, of Sulzer Rudolph & Co., Inc., as first vice-president succeeding Douglas Walker who recently resigned. J. C. Cuppia, of A. E. Pearce & Co. was named second vice-president and August Schierenberg, of Corn Schwarz & Co. treasurer.

The following new members were elected to the board to serve for three years; Frederic D. Huntington, of Real Silk Hosiery Mills; Charles V. V. Smillie, manager of the silk department of Bond McEnany & Co.; Alexander D. Walker, of A. D. Walker & Co., and Douglas Walker, of Douglas Walker & Co.

Frank W. Lovatt, of Lovatt Bros., was elected a member of the board of governors to serve for one year.

The newly elected officers and members of the board took office this week.

## Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the weeks ended July 17 and July 11, based upon data compiled by the Department of Agriculture, follow:

| | Week Ended July 17 | Total to Date 1931 | Total to Date 1930 |
|---|---|---|---|
| Domestic | 31,073,000 | 157,844,000 | 137,374,000 |
| Foreign | 1,152,000 | 28,480,000 | 41,858,000 |
| Total | 32,225,000 | 186,324,000 | 179,232,000 |
| IMPORTS AT PRINCIPAL PORTS | | | |
| Boston | 1,152,000 | 28,480,000 | 41,858,000 |
| Philadelphia | 2,397,000 | 31,215,000 | 30,476,000 |
| New York | 429,000 | 28,942,000 | 27,646,000 |
| Total | 3,978,000 | 88,637,000 | 99,980,000 |

| | Week Ended July 11 | Total to Date 1931 | Total to Date 1930 |
|---|---|---|---|
| Domestic | 13,563,000 | 126,771,000 | 124,989,000 |
| Foreign | 643,000 | 27,428,000 | 40,748,000 |
| Total | 14,206,000 | 154,199,000 | 165,737,000 |
| IMPORTS AT PRINCIPAL PORTS | | | |
| Boston | 643,000 | 27,428,000 | 40,748,000 |
| Philadelphia | 996,000 | 28,818,000 | 30,130,000 |
| New York | 853,000 | 28,513,000 | 27,395,000 |
| Total | 2,492,000 | 84,759,000 | 98,273,000 |

## All-Cotton Shop Opens in Gastonia, N. C.

The Fashion Dress Shop, Gastonia, N. C., which opened last week, is the first all-cotton shop to make its appearance in the South. Mr. and Mrs. A. S. Karesch, the owners and managers, plan to feature moderate priced daytime and evening dresses, coats and accessories developed in southern cotton. Specialization will be made of Durene cotton meshes, laces, embroideries, broadcloths, oxfords and jerseys. It is anticipated that Gastonia's Cotton Shop may inspire a series.

# New Books

COTTON DOUBLING AND TWISTING. Sections VII and VIII. By Sam Wakefield. C. Nicholls & Co., Ltd., Manchester, England. 100 pages.

In the first section of this volume the author goes into considerable detail to describe the methods of twisting both single and double yarns. He discusses such topics as direction and balancing of twist. He also describes carefully the different uses of doubled and twisted yarns and the requirements they must meet in order to be put to these uses.

The second section deals with the costs, waste, and organization of doubling mills. The various topics taken up in this section are: record of waste, cost of losses, value of waste, location of losses, production versus waste, cost and organization, division of costs, and current expenses.

THEORY AND ELECTRICAL DRIVE OF THE LOOM. By R. H. Wilmot, M.Sc., A.M.I.E.E., Assoc. A.I.E.E.; Isaac Pitman & Sons, New York. 138 pages. Illustrated. Price $2.50.

The operations of the loom are analyzed from perhaps a little different angle in this book by Mr. Wilmot.

The sley and shuttle motions are carefully analyzed from the theoretical or mathematical viewpoint, then the author goes about to propound theoretical expressions for the power required to drive the loom. The power required for both acceleration and normal running of the loom is determined.

TECHNICAL TERMS IN THE TEXTILE TRADE. By Eber Midgley, F.T.I.; Technical College, Bradford, England. Vol. I, Cloth terms. 325 pages. Illustrated. Price $5.10.

Due to the fact that there are so many different textile technological terms, many of which have several meanings, considerable confusion exists as to their exact interpretation.

In this volume is contained definitions of more than 2,300 terms, which it is hoped will be beneficial not only to men directly connected with the textile industry but also to those persons who come into only occasional contact with with it. The author has not confined himself to the production of a technical dictionary, but has taken the opportunity to deal more fully with terms descriptive of various fabrics.

1931 YEAR BOOK: National Knitted Outerwear Association; National Knitted Outerwear Association, 347 Fifth Avenue, New York. Price $5.

The 1931 Year Book of the National Knitted Outerwear Association, recently issued, contains a digest of the chief addresses made at the national convention of the association held in Philadelphia, April 14. The volume also carries numerous statistics on knitted outerwear production, including sweater, headwear, swimsuit, necktie, fabric and other divisions; and also offers tables showing outerwear imports.

AN INDEX OF PATENTED MOTHPROOFING COMPOUNDS. By R. C. Roark; 125 pages, U. S. Department of Agriculture, Bureau of Chemistry and Soils, Insecticide Division.

Although this index is intended primarily to aid those engaged in researches on insecticides, it should be of value also to manufacturers interested in protecting woolens, worsteds, furs, etc., against the ravages of the clothes moth. It lists the materials which have been prepared for use in mothproofing in alphabetical order, gives the numbers of the patents under which they have been protected, and includes numerous references to technical and scientific publications.

TEXTILE DESIGN AND COLOR. By William Watson, F.T.I., Glasgow; Longmans, Green & Co., London. Illustrated, 470 pages, 3d Edition. Price $7.50.

This book deals with the designing and coloring of fabrics which are chiefly made up of one series of warp and one series of filling threads. The construction and combination of simple and special weaves, the structure of standard classes of cloths, the theories of color, and the application of colors to textile fabrics are described and illustrated; while the designing of ordinary figured fabrics, to which eight chapters are devoted, forms an important section of the work. Textile calculations, so far as they concern woven designs, are fully explained.

The appendix discusses standard yarns, weaves, and fabrics, and includes a new article on the manufacture of rayon. This discussion of rayon has not been present in previous editions.

JUTE 1931. British-Continental Press, Ltd., 54 Fleet St., London; Price, 10 shillings.

This, the first issue of the first year book of the jute industry constitutes a reference work on raw material markets, conditions in consuming industries, jute machinery development, jute substitutes, commercial research, and many other aspects of the jute industry. In their preface, the publishers tell of their plans to improve and develop the annual in future issues.

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# Business Literature

**High Drafting.** Howard & Bullough, Ltd., England (H & B American Machine Co., Pawtucket, R. I.). A 19-page booklet concerning high drafting on ring spinning frames. Purpose of high drafting, early inventions and outline of various modern methods given, with particular emphasis on four-roller system.

**Tubes.** Combustion Engineering Corp., New York City. Catalog describes C-E Fin-Tube Economizer, citing design and new advantages such as fewer return bend joints; high rate of heat transfer and low water pressure drop.

**Speed Reducers.** Gears & Forgings, Inc., Cleveland, Ohio. G & F speed reducers, including planetary, worm, and herringbone, are listed, together with their characteristics and advantages.

**Registers.** Ohmer Fare Register Co., Dayton, O. Illustrated folder lists transportation companies using Ohmer fare registers and describes certain registers in detail.

**Cables.** Sullivan Machinery Co., New York City. Uses and specifications of "Stringalite" safety lighting cable are described.

**Pilot Switches.** Cutler-Hammer, Inc., Milwaukee, Wis. New equipment, comprising a three-position pilot switch, suitable for motor driven pumps, compressors, and similar devices is announced.

**Truck Casters.** Charles Bond Co., Philadelphia, Pa. Circular issued by this distributing company describes its own line and also products manufactured by associated company. Bond Foundry & Machine Co., of Manheim, Pa., which Charles Bond Co. sells.

**Remote Control.** The Brown Instrument Co., Philadelphia. Booklet contains schematic diagram of the de Florez remote manual control system, showing its operation in detail, and also describes other Brown instruments.

# Business News

## New Canadian Combine Represents Kalbfleisch

Announcement is made of the formation of Dillons-Klipstein, Ltd., of Montreal, Canada. Beginning July 1 this organization is acting as sales representative in the Canadian territory for the Kalbfleisch Corp., in the sale of its products to the paper, textile and other industries.

The combination has been made up of Dillons Ltd. and A. Klipstein & Co., Ltd., of Canada.

## Robert Gair Extends Activities Into Canada

With the election of E. Victor Donaldson, president and general manager of the Robert Gair Co., to the board of directors of Maritime Paper Products, Ltd., Halifax, Nova Scotia, it became known that the Gair company has extended its activities to Canada and holds a substantial interest in the Halifax concern. Maritime Paper Products, Ltd., was organized recently for the manufacture and sale of corrugated paper boxes and containers.

## Benj. Booth Co. Lease New Quarters

Benjamin Booth Co., Inc., 1717 N. Bodine Street, Philadelphia, manufacturer of card clothing, has leased a floor in the main building and building No. 1 of the property at Allegheny Avenue and Janney Street. The company will begin removing in the near future, and will be completely established there by October 1. The new quarters will give greatly improved facilities for the rearrangement of their operations.

## Synthane Corp. Opens Cleveland Office

Synthane Corp., Oaks, Pa., manufacturer of Synthane laminated Bakelite products, has appointed J. W. Davis as its Ohio representative with offices at 1302 Ontario Street, Cleveland, Ohio.

Synthane Corp. maintains extensive stocks of laminated Synthane gear material at its Cleveland office, with adequate facilities for immediate delivery of full sheets or blanks.

## Armstrong Cork Co. to Consolidate Its Cincinnati Branches

All the Cincinnati branch sales offices and warehouses of the Armstrong Cork Co., manufacturers of linoleum, rugs, insulation materials, and all kinds of cork products, are to be consolidated at 232 West Seventh Street. The move, which brings together sales divisions that have previously maintained separate offices, will be completed by July 20.

## Safety Belt Lacer Co. Had Record Business in June

O. B. Briggs, president of the Safety Belt Lacer Co., Toledo, Ohio, reports a 23% increase in sales of safety belt hooks over the record month in the company's history. Business so far in July is 30% over any period of the same number of days, according to Mr. Briggs.